

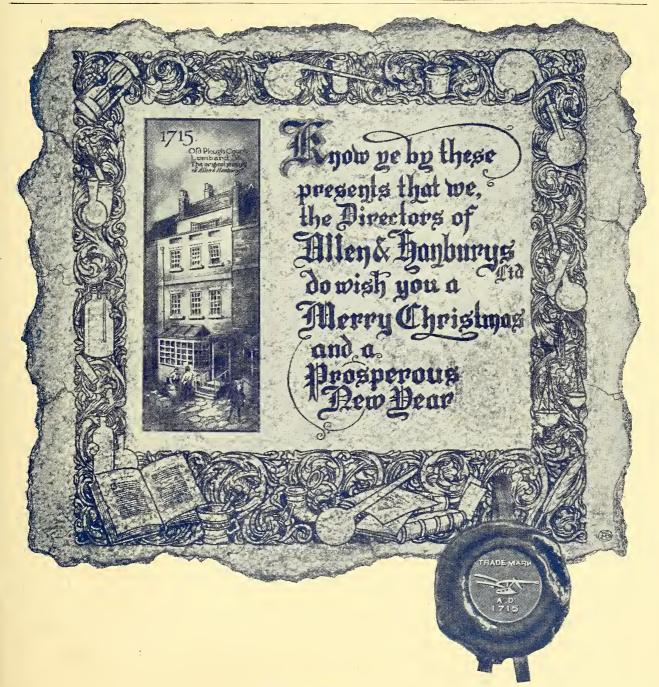
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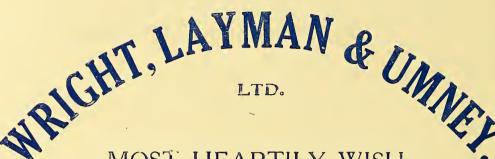
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No. 2135

DECEMBER 25, 1920.

VOL. XCIII.





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to our numerous customers, with our heartiest thanks for their support in 1920, and the reassurance of our devoted services for 1921.

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CHRISTMAS 1920



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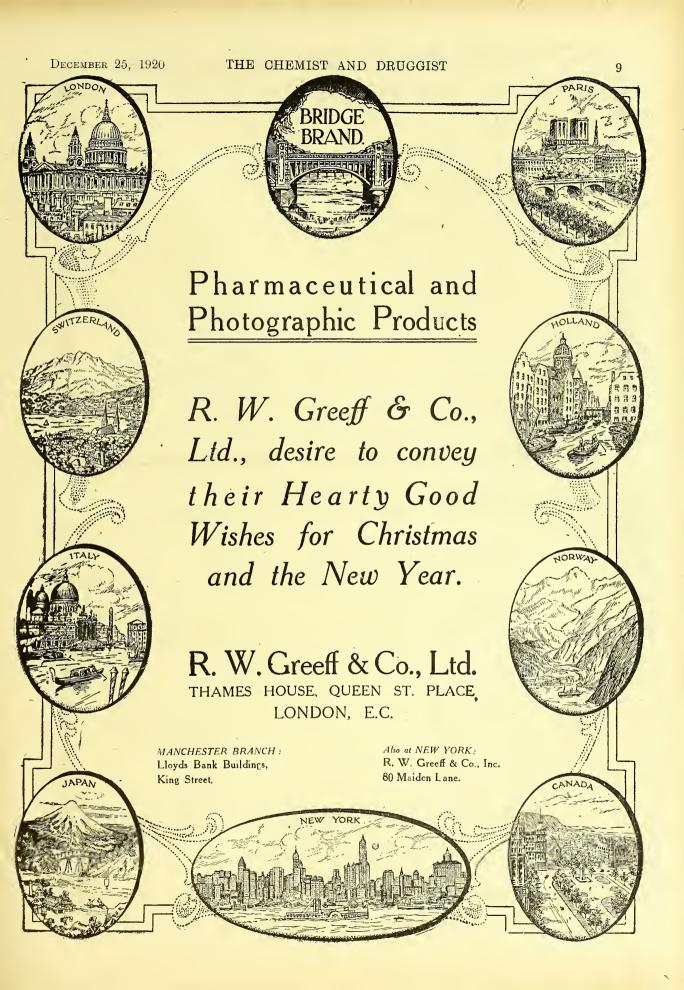
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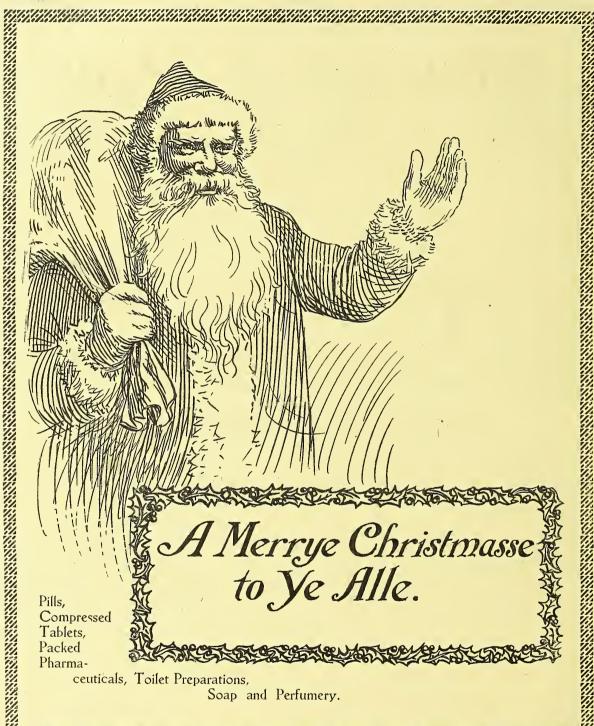
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December 25, 1920

No. 480.

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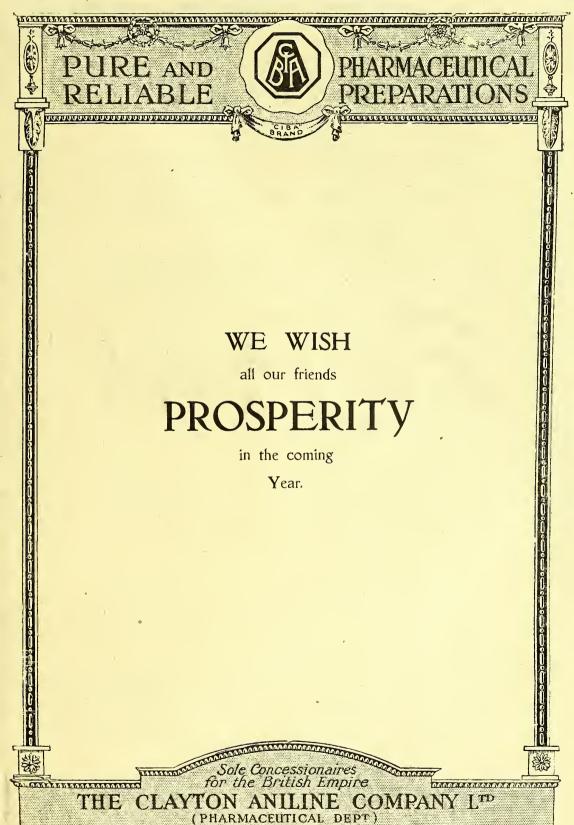
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PHARMACEUTICAL AND HEAVY CHEMICALS ESSENTIAL OILS DRUGS OILS WAXES

85 Blackfriars Road, London, S.E.1





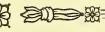


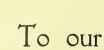
AYRTON, SAUNDERS ® CO.

Ltd.

Wish their friends a Bright and Happy Christmas and Increased Prosperity in the New Year.

ACH year, somehow or other, brings its own troubles, difficulties and problems; and from what they can see. 1921 will not be an exception. As a matter of fact, apparently, there are more problems facing Pharmacy in the coming year than in any previous one. Ayrton, Saunders & Co., Ltd., appreciate, however, that never before were Pharmacists more united and better equipped to meet these problems than at the present time; and they feel sure, whether it be the American Invasion, Pharmaceutical Government, N. H. I. Profits, the Proprietary Medicines Bill, Retail Pharmacists' Union, the margin on Patents, or any other problem, British Pharmacists will be able to hold their own and come out on top.







Friends

Hearty Greetings & Best Wishes



MR. B. JONES.



Mr. F. Tough.



MR. E. WOODHEAD.



MR, A. WESTLAND.



Mr. R. S. CATLOW, Director.



Mr. Arthur Berton, Governing Director,





Mr. H. Berton Managing Director.



MR. P. HAYWARD.



MR. W. WELSH,



W I F



MR. A. W. COSTER.

From the Directors, Departmental Managers,





at Home



& Abroad

r a Happy and Prosperous New Year









R. C. F. Norris.















MR. M. CRISTEL.





MR. O. E. THOMAS.





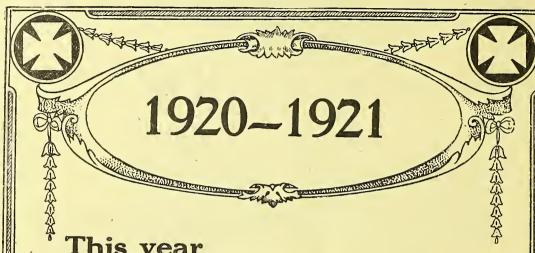


and Representatives of

London, Manchester and Glasgow







This year

has marked a further increase in the number of our friends. To all clients we extend our cordial greetings and best wishes at this time.

Next year

will show further developments which it is hoped will prove of considerable benefit to all clients. May it be a happy year right through.

Sometime

expresses futurity whose dim distances none of us can fathom, but "hope springs eternal" and we live in the expectation of great things.

Never

stay in a rut. Go one better every time and keep things moving. You help the manufacturer by your activity and co-operation and it will return to you in the end.

London Office and Warehouse:

49 & 51 CENTRAL STREET, E.C. 1.

Telephone

ROBERT BAILEY & SON, Ltd., SURGICAL DRESSING MANUFACTURERS.

MARRIOTT STREET MILLS, STOCKPORT.

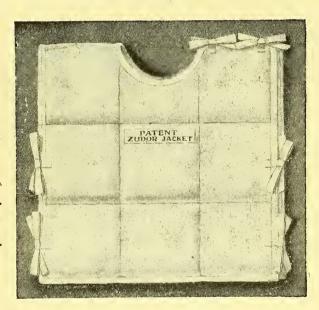
ABLES UNDISPUTED, STOCKPORT, CODE ABC 5TH EDITION



To all our many Chemist friends we send Hearty Greetings and Best Wishes for Prosperity in the New Year

New Year 1921

XMAS 1920 "ZUDOR" **JACKETS**



In Six Sizes and Two Qualities. (Any special size made to Order.)

nimeters.	No.	Chest	to waist.	Per doz.	each.	Per doz.	each.
	1.	8 in.	6 in.	10/-	1/3	16/-	2/-
Showcards	2.	10 in.	8 in.	15/-	2/-	24/-	3/-
and	3.	12 in.	10 in.	19/-	2/6	30/-	3/9
Advantising Matten	4.	15 in.	12 in.	26/6	3/4	36/-	4/6
Advertising Matter	5.	19 in.	13 in.	32/6	4/2	42/-	5/3
supplied with each Order.	6.	21 in.	15 in.	40/-	5/-	54/-	6/9

CUXSON, GERRARD & Co., Ltd. OLDBURY, near BIRMINGHAM.

Greetings & Good Wishes

May the New Year bring added Prosperity



SPECIALITIES

Evans Sons Lescher & Webb Ltd. LIVERPOOL - New York - LONDON.

Greeting & Goodwill to the Wholesale and Export Drug Trade, and best wishes for a Happy & Prosperous New Year.

WILLIAM RANSOM & SON, LTD.

Manufacturing Pharmaceutical Chemists, HITCHIN • • • • • • • HERTS.

Specialities:

TINCTURES IN BOND
EXTRACTS
(Solid & Liquid)
RESINS

ESSENTIAL OILS MEDICINAL HERBS

ESTABLISHED 1845.

TELEPHONE: 95 HITCHIN. CODE: A B C, 5th Edn.

emmonomico de Samonomico de Company



TOILET PREPARATIONS



Well Made & Daintily Packed

M T. I T

OLD CUSTOM

is worthy of emulation in many ways, and at this season we adopt the time—honoured practice of wishing our friends in the trade

A HAPPY CHRISTMAS

NEW CUSTOM

coming to your pharmacy as a result of stocking attractive toilet preparations will bring you

A PROSPEROUS NEW YEAR

Telephone:
HOP 4170
(2 lines).

WILLIAM TOOGOOD LTD 77, SOUTHWARK ST LONDON, S.E.I.

Telegrams:
"TOOGOOD,
BOROH,
LONDON."



The Quality Mark for Chemist's Own Name Specialities & Toilet Aids.

XMAS 1920.

Our forty years' experience in the packing of Chemists' Proprietaries enables us to co-operate effectively towards mutual prosperity in the Coming Year.

Greetings to the trade all over the world.

NEW YEAR 1921.

LORIMER-MARSHALL, LTD.

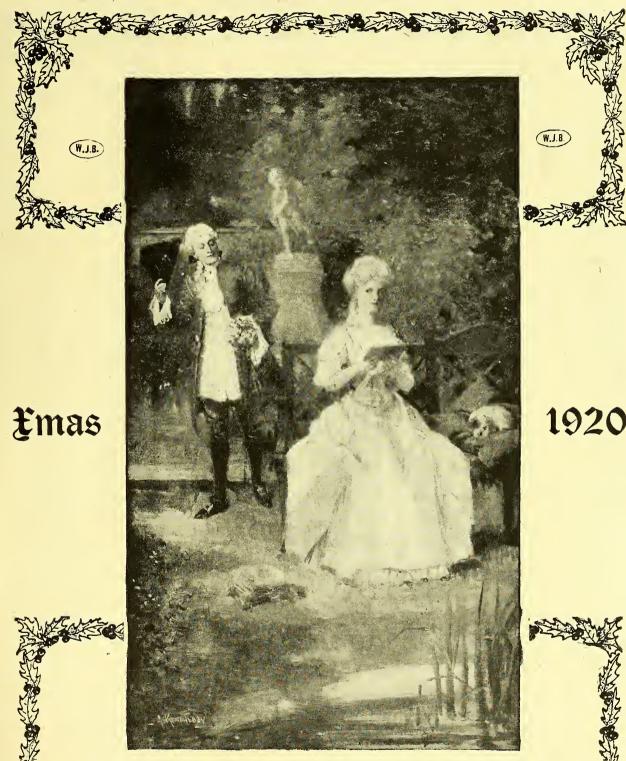
Offices & Showrooms: 12 Tower Hill, London, E.C. 3. Works: Coldblow, Hatcham, London, S.E. 14.

Thearty Christmas Greetings

From

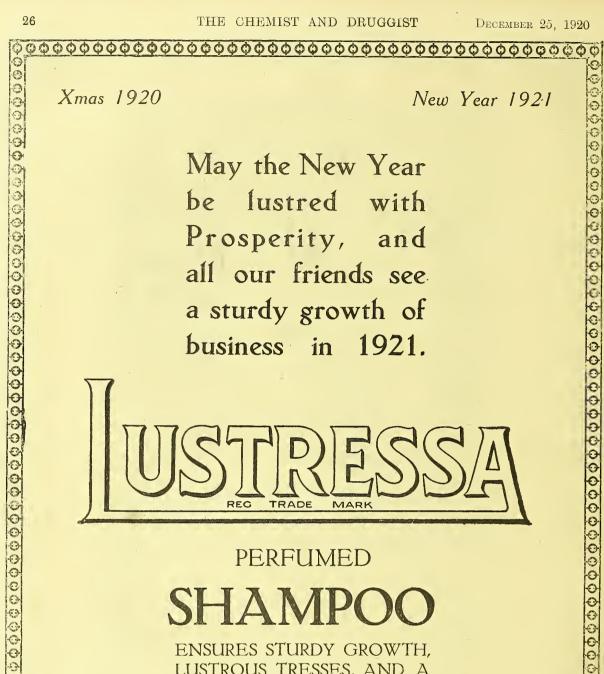
C. 1R. Marker, Stagg & Morgan,

Devon Wharf and Bell Wharf Emmott Street, Mile End, E.1.



We beg to thank our friends for their support during the past year, and wish them the Compliments of the Season.

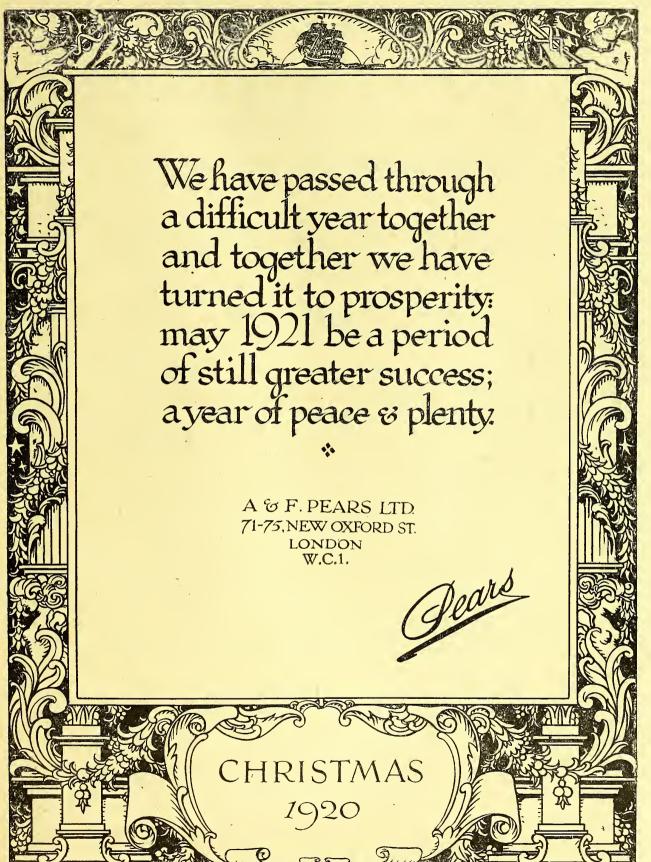
W. J. BUSH & CO. Ltd., Ash Grove, Hackney, E. 8.



ENSURES STURDY GROWTH. LUSTROUS TRESSES, AND A HEALTHY CONDITION OF THE HAIR AND SCALP.

C. A. STOKES & CO., Ltd.

ECLIPSOL WORKS, BRISTOL.



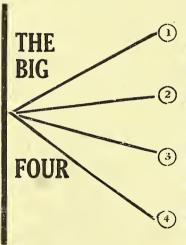


is upon us, with new opportunities for Business Development

Regarding

EUCRYL PREPARATIONS

Chemists should remember



They show an enormous profit

They are advertised to the Public, therefore

They are in constant demand

They represent the latest developments in Scientific Hygiene

WRITE FOR SPECIAL BONUS OFFER

Hearty Greetings to all our Friends at Home and Abroad

EUCRYL LTD., Eucryl Works, Shirley, SOUTHAMPTON.

Merriest Greetings for Christmas

ana

Heartiest Wishes for the New Year.



YOU want Soap of irreproachable quality.

YOU want to pay only competitive prices.

YOU want earnest and thorough service.

WE respectfully urge that we can give you all these, and we solicit your kind enquiries.



EDWARD COOK & CO., Ltd.,

THE SOAPERY, BOW, LONDON, E.3.



89, 91, 93 and 95 City Road, Near Finsbury Sq., London, E.C.

Telephone No.: Clerkenwell 1260 (2 lines).



Factory:

41 to 53 Britannia Row, Islington, N



29, 30, 31, 32 and 33 Berners St., Oxford Street, London, W.

Telephone No.: Museum 2810 (3 lines).

1920

THE SEASON'S GREETINGS

1921

To our Friends who have contributed highly satisfactory year's business

we extend

EETINGS with the



hope that Christmas and the New Year may bring them

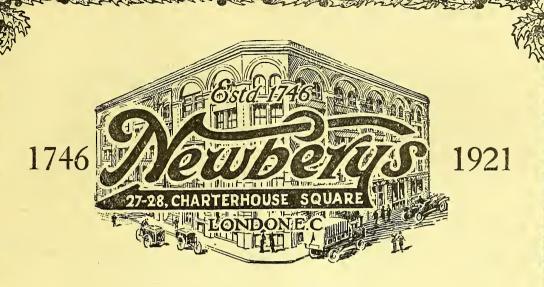
Prosperity. Happiness

R. HOVENDEN & SONS, LIMITED

Brushes Combs Cricket & Tenn's Goods Manicure Preparations Tobacconists' Sundries Cutlery Druggists' Sundries Essential Oils

Fancy Leather Goods Proprietary Medicines Perfume Sprays Perfumery Photo Goods

Fancy & Shaving Soaps Theatrical Grease Paints Toilet Articles Walking Sticks &c. &c.



A Return to the Normal

is the ardent desire of every wellwisher of this Country. We can co-operate with you to increase production and expedite sales during the

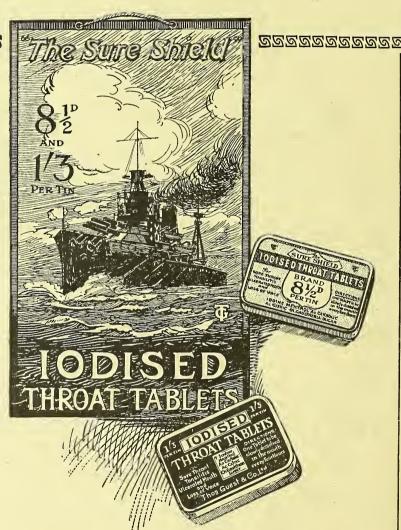
Years to Come.

GREETINGS & HEARTY GOODWILL TO ALL our FRIENDS at HOME & ABROAD

Francis Newbery & Sons, Ltd.

Druggists' Sundriesmen and Manufacturers,
Charterhouse Square, London,
and at Cardiff, England.

<u>ରଜଜଜଜଜଜଜଜଜଜଜ</u>ଜ



Thos. Guest & Co., Limited,





MALT & COD LIVER OIL

Prepared exclusively from the finest selected Barley grown on the East Coast of Scotland. Combined with the best Norwegian Non-Freezing Cod Liver Oil. Pleasant to the palate and easily assimilated.

To our friends the Chemists we send Best Wishes for Happiness and Prosperity in the New Year.

PERRY @ HOPE, LTD.

NITSHILL near Glasgow.

London Office: 1 LEADENHALL STREET, E.C.3.

Telephones: NITSHILL-Pollokshaws 14.
LONDO V-Ave .ue 5661 (3 lines).

Telegrams: "Perryope Nitshill."
"Ferryope, Led, London."



A Imas Prescription for

Every Chemist

HERE'S to the Chemist! May the Christmas Bells herald for every Knight of the Pestle and Mortar a Day of Days well-seasoned with Good Cheer.

MAY the Spirit of Service that animates every true Chemist distil its due reward of increasing Goodwill and Profit.

THIS is the Xmas Prescription written for every Chemist by the

SANAGEN CO., LTD.

H. M. Critchley, Secretary.

SANAGEN CO., Ltd., Latchmere Road, BATTERSEA - LONDON, S.W.11

Telephone: Latchmere 4363.\(\)
Telegrams: "Phosaglyc, Batt-Square, London."

Johnson & Sons

Johnson & Sons

Manufacturing Chemists
Limited

Greet the Trade with best wishes for Christmas and the New Year

Develop your trade by selling Johnsons' Photographic Chemicals.

Tone up your business by cultivating the custom of amateur photographers.

Fix in the mind of your customers that you always supply the best.

Your Balance of Profit will be augmented by stocking Scales Brand Chemicals

Write for full List.

Cross Street LONDON

Finsbury, E.C. 2



Telegrams: "Tyremicus, Phone, London."

Telephone: East 3729:

Thomas Tyrer & Co., Ltd.

STRATFORD, LONDON, E.

send

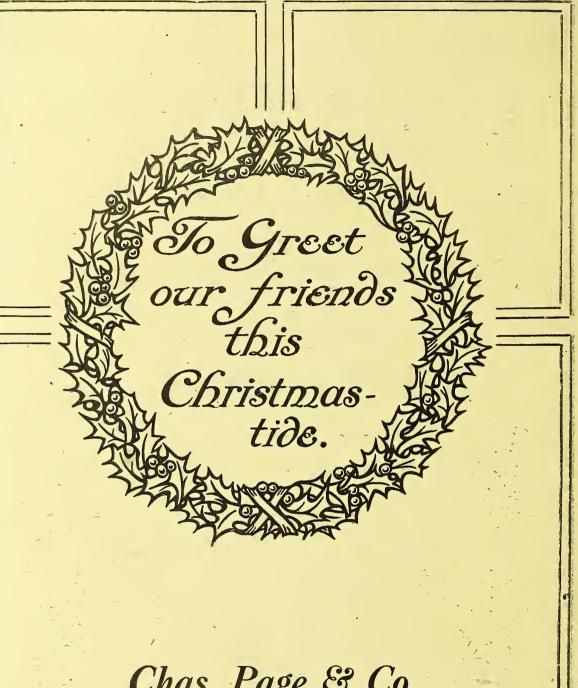
"Sterling" Greetings to all engaged in Chemicals.

XMAS 1920.

NEW YEAR 1921.

Once more we greet our friends at the beginning of a New Year. We hope it will prove to all a year of Happiness & Prosperity. We will continue to uphold our friends' reputations by the quality of our products, and invite them to remember that

OUR REPUTATION— YOUR GUARANTEE.



Chas. Page & Co.

Limited,

47/51 King William Street, London, E.C.4.

ALKALOIDS FINE CHEMICALS OPIUM DERIVATIVES

1920

1921

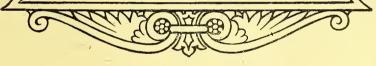
GREETING

AND

GOODWILL

TO ALL IN THE

DRUG TRADE



We extend to all our business friends our best wishes for their Prosperity in the Coming Year. So far as our part is concerned, we propose to do all we can to help towards this desirable end, and we trust that by mutual co-operation we and our many friends may experience a good business year.

T. & H. SMITH, LTD.

BLANDFIELD WORKS, 25 CHRISTOPHER ST., 37 WASHINGTON ST., EDINBURGH, LONDON, E.C. 2. GLASGOW.



Try "Licoricine" as a remedy for bad trade, and ensure the New Year being to you one of

HAPPINESS & PROSPERITY

With the Compliments of
MANDALL & CO., Ltd., NEWCASTLE-ON-TYNE

Greetings and Good Wishes

May the New Year bring Greater Prosperity to the Many Chemists who always specify

The "LEICESTER" & "NATIONAL" Medicated Plasters.

Porous Plasters,
Felt Plasters,
Marginal Plasters,
Rubber Adhesive Plaster,
Menthol Plaster,
Dental Plasters,
Corn Plasters,
Salicylic Plaster,
Plaster-of-Paris Bandages,

"THE LEICESTER"

ADHESIVE PLASTER

FOR EXPORT.

SPECIALLY PREPARED

AND PACKED.

GUARANTEED SUITABLE
FOR HOT CLIMATES.

Spread Plasters,
Hospital Strapping,
Ribbon Plasters,
Breast Plasters,
Kidney Plasters,
Dermal Plasters,
Mustard Leaves,
Court Plasters,
Bedsore and Wound Pads.

"NATIONAL" ZINC OXIDE ADHESIVE (Rubber Base)

Supplied on 5-yard and 10-yard Spools—all widths.

Strong — pliable — non-irritating — very adhesive — keeps good indefinitely.

Write for Sample and Price List to

A. DE ST. DALMAS & CO. LTD. LEICESTER.

JOHN BULL

stands for HONEST VALUE all the world over.

"JOHN BULL" MALT EXTRACT is recognised as THE BEST QUALITY & VALUE.



Best Wishes for Xmas & New Year.

PAINE & CO., LTD., ST. NEOTS, HUNTS.



Baiss

Products have had a record sale in 1920. They have helped British Trade, and so have helped to minimise the

Aftermath of the War.

Realising this, we make no apology for once more wishing all our friends over the World

Prosperity in the New Year

Drugs, Fine Chemicals, Galenicals, Packed Specialities, Surgical Requisites, etc.

BAISS BROS. & COMPANY, LTD.

Manufacturing Chemists and Wholesale Druggists, 174, 175, 176 Grange Rd., Bermondsey, S.E.

Established 1833.

The Mark of



Efficiency.

To all

Pharmacists

& Drug Stores

we send

Hearty Greetings

and

Best Wishes

for Prosperity

in 1921

Thomas Waide & Sons

KIRKSTALL ROAD, LEEDS.



Telegrams:
"Refresbing, Cent, London."

Telephones: Central 4461 & 4462

1R. J. Reuter, 69 Carter Lane, E.C. 4.

wishes to thank his numerous customers both at Home and Overseas for the generous support he has received from them during 1920, and presents to all his best wishes for their Prosperity in 1921.

factory: Queen's Buildings, Elliott's Court, Old Bailey, E.C. 4.

Scientific Glass=Blowing Works:
31 St. Ann's Chambers. E.C.



Greetings & Good Wilishes

May the New Year bring added Prosperity.

Opportunity to QUALIFY in OPTICS

Expert Tuition by Correspondence for the SIGHT-TESTING DIPLOMAS of the Worshipful Company of Spectacle Makers (F.S.M.C.) or the British Optical Association (D.B.O.A.).

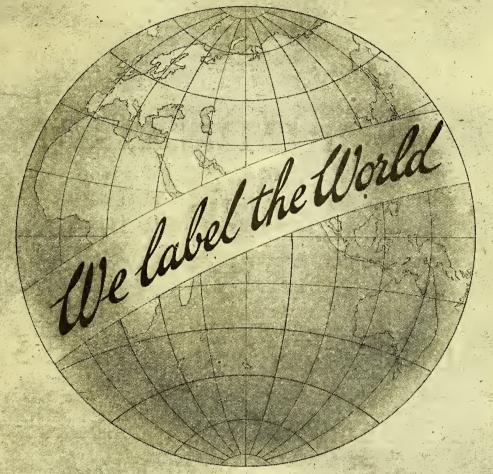
Thorough systematic coaching in preparation for these Examinations and personal guidance throughout. The courses may be commenced at any time, and they are so arranged as to extend over any period to suit individual requirements.

REASONABLE FEES.

WRITE FOR FULL PARTICULARS

C. A. SCURR, M.P.S., F.S.M.C., F.I.O., etc. 40 Courthope Road, Hampstead, London, N.W.3





Xmas, 1920 New Year, 1921

MANY THANKS

PAST PATRONAGE

BEST WISHES FOR 1921

Suttley & Silverlock, Ltd., Blackfriars, London, S.E.1



DISCRIMINATION

in the buying of BRUSHES is more than ever necessary in these days owing to the influx of foreign goods.

KENT'S

and

BEST BRITISH BRUSHES

are synonymous terms.

Hearty Greetings and Good Wishes for a Happy and Prosperous New Year.

G. B. KENT & SONS, LTD.,

75 FARRINGDON ROAD, LONDON, E.C.

Page.



THE PROPRIETORS OF "PERIVALE" PREPARATIONS

take this opportunity of thanking their many new friends for the support which has been accorded them during 1920, and to offer

Seasonable Greetings with Best. Ulishes for continued Prosperity in the Mew Year.

PROSPERITY means quick sales and good profits. Our customers get both, because we are out to help the Retailer by supplying only the finest quality preparations; put up in the most attractive manner, retailing at moderate prices and showing good handling profits.

If you are not already stocking, send TO-DAY for Price List and Samples

'PERIVALE" PREPARATIONS

THE

Successful Toilet Series of Exceptional Merit.

- "Crême de Menthe" Tooth Paste.
- "Perivale" Vanishing Cream (non-greasy).
- "Perivale" Hair Cream.
- "Perivale" Brilliantine.
- "Perivale" Mouthwash.
- "Peri ale" Liquid Shampoo.
- "Perivale" Solid Brilliantine.
- "Perivale" Old English Mitcham Lavender Water.

HAVE YOU ENTERED for our NEW WINDOW-DRESSING COMPETITION?

Look for an INTERESTING ANNOUNCEMENT on this page, early in January.

LANGHAM BROTHERS, LIMITED,

MANUFACTURERS OF PERIVALE,

FINE CHEMICALS, WEST EALING, W.13.

20/24 Butts Court, & 89 Albion Street, Leeds. December 23, 1920.

POR over eleven months the near we engaged in soliciting your orders by our advertisenrents in this Journal.

It is a real pleasure at this time to forget "Chemists' Sundries" and enter into the spirit of Christmas with our friends at Fome and Abroad.

THe sincerely trust that the difficult times are over and that the New Hear will usber in a period of Prosperity for all.

Thos. Swales.



JREETINGS.

Vernon Powell Ltd. send Hearty Greetings to all their customers and friends, and wish them A Happy and Prosperous New Year.

FOR

TOILET REOUISITES

DRUGGISTS' SUNDRIES

VERNON POWELL Ltd.

9 & 10 St. Andrew's Hill, E.C.4. T. lephone : City 3125.



Our 42nd Xmas

affords us vet another Opportunity for Wishing All Friends a Zoyous Christmas and a Profitable New Pear.

MALTINE MANUFACTURING CO., LTD. 183 ACTON VALE. LONDON, W.3.

DANCING is all the RAGE these XMAS holidays.

Are you prepared to meet the demand for Ballroom Floor Polish with the leading line?



1s. 6d. size 12/-doz. 2s. 6d. " 20/- " (double),

3 doz. less 21 % 6 doz. " 5 %

ABERDEEN.

Your Profit Assured.

"Slipperine" may be ordered through any of the following wholesale distributors—

MAY, ROBERTS & Co., Ltd. ...
RAIMES, CLARKE & Co., Ltd.
HARKNESS, BEAUMONT & Co.
T. & H. SWITH, Ltd. ...
PINKERTON, GIBSON & Co. Ltd.
J. F. MACFARLAN & Co. ...
JOHN MACKAY & CO., Ltd.
DUNCAN, FLOCKHART & CO. ...

ON

THE

P. A. T. A.

Window Bills

supplied.

LONDON & DUBLIN.

EDINBURGH.

W. PATERSON & SONS

GLASGOW.

DUBLIN.

Where not represented, the Makers will be pleased to state carriage paid quantity on request, or will gladly send a first order for 1 dozen, carriage paid, cash with order, if wholesaler's name is given.

Johnston & Adams, Dundee, Scotland.

Bearty Greetings from Sawbridgeworth.



H. A. & D. TAYLOR, LTD.,

HIGH-CLASS MALT EXTRACT MANUFACTURERS, Head Office: SAWBRIDGEWORTH, HERTS.

Maltings at Sawbridgeworth, Bishops Stortford, Bury St. Edmunds, Newmarket and Newark-on-Trent, 1

To our friends, both at Home and Abroad!



HAPPY AND PROSPEROUS NEW YEAR!

We hope to continue our business relationships with you all in the same harmonious way as of past years.

This New Year, 1921, we have made the resolution to beat all previous records as the leading house for printed matter, smart designs and neat workmanship.

ALF. HARRISON & SONS,

Advertising Specialists and Chemists' Printers,

224 Burley Road, LEEDS.

Telegrams: "Ideas Leeds." Tel. 1

Tel. No. 26674.

P.A.T.A. NOTICE.

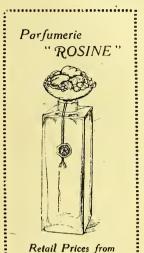
113 Temple Chambers, Temple Avenue, E.C. 4.

Christmas, 1920.

As there are no revised prices for publication this week, the Council take this opportunity to record its thanks and appreciation to all its numerous members, whether Manufacturers, Wholesalers or Retailers, for the support accorded during 1920 in maintaining and extending the work of the Association, and trust that the coming year will be even more successful from all points of view than the one now ending. To this end individuals, firms and associations should use their utmost efforts to secure as many important additions to the Protected List in 1921 as have been made in 1920.

WE SINCERELY THANK CHEMISTS and ASSISTANTS

who have helped so much to make our success



21/- 10 63/-

with the beautiful products of

"Rosine" "De Luzy"

We wish them Prosperity in the New Year, and venture to suggest that a sympathetic consideration of the possibilities of these lines will help them to Prosperity.

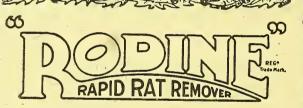


Powder, Cream & Perfume. Retail 102d. to 21/-

W. H. CALNAN & CO., 30-32 Ludgate Hill, E.C. 4.







Christmas Breetings

Thomas Harley, Proprietor of "Rodine," sends Heartiest Christmas Greetings to all Agents and Chemist Friends throughout the United Kingdom. May 1921 bring the solution of the Labour troubles, and increased Trade and Prosperity to all in the Drug Trade,

PERTH, SCOTLAND.

December 25, 1920



WESTMINSTER COLLEGE OF PHARMACY

The Principals and Staff send—

The Season's Greetings for Christmas and New Year to all Past, Present and Future Westminster Students.

190 Clapham Road, LONDON, S.W, 9.

POTTER & CLARKE, Ld.

60, 62, 64 Artillery Lane, London, E. 1.

And at 24 Luna Street, Great Ancoats, Manchester,



LINES THAT WILL BRING YOU A PROSPEROUS NEW YEAR.



Potter's Asthma Preparations.

Potter's Asthma Cure - 1/6 14/- doz.
,, Cigarettes - 1/6 14/- ,,
Smoking Mixture 9d. 7/- ,,

ADVERTISED EVERYWHERE.



MEDICATED PASTILLES

In 4-lb, tins.

Black Throat, Black Antiseptic, Children's Throat, Eucalyptus Gems, Eucalyptus and Menthol. 2/8 lb. 16 lb. 2/6 28 lb. 2/5 56 lb. 2/4 1 cwt. 2/3 Thappy Christmas

Prosperous. Hew Bear

"FIVE BARKS"
CHEST AND LUNG JUBES
Retail 2½d. oz. 9d. per ½ lb.
4 lb. tins 2/2 lb. 28 lb. tins 1/11
56 lb. tins 1/10 1 cwt. 1/9
9d. boxes (4 oz.) 7/- doz.

New Poster in Six Colours with all orders.

BORALIA (REGD.) TOILET PREPARATIONS.

A very attractive series of TOILET SPECIALITIES is being produced bearing the name, "BORALIA."

"BORALIA" COCONUT OIL Two specimens are shown here. "BORALIA" DENTAL CREAM AND TOOTH POWDER



Attractive Show Matter with all crders.

Good profits on all sales.

Dental Cream
7/6 doz.
Tooth Powder
5/3 doz.



4 oz. size 12/6 doz. 2 oz. size 8/- doz.



NEAR

The Leading House of Ideas for Pharmacy.

Offer an unique service to both manufacturers and retailers who require advice and assistance upon matters relative to advertising and selling.

We invite correspondence with manufacturers of really High-class Preparations, Toilet Specialties, Perfumery or Sundries, provided they are lines that will not clash with our present interests.

We are in an unique position to give you the best provided your lines are such as we can have confidence in.

Advertising must be well done to be effective—there is nothing upon which you can waste more money than ineffective publicity. If you have the line we can create the market for you.

ADDRESS PUBLICITY DEPT.

MORLAND PHARMACY SERVICE

Thousands of Samples of

being distributed



Advertised in the leading London and Provincial Daily Papers, Magazines, Weeklies, etc.

We also provide, Free of Charge, Attractive Show-cards, Dummy Cartons and Booklets on SILKO-DONO Hair Culture.

N this way we are proving to many of your customers the wonderful Hair Strengthening and Beautifying powers of this wonderful remedy. They will naturally come to you for regular supplies. Don't turn good bainess away. Order your supply to-day. There is an excellent profit on SILKODONO, and we help you to keep selling it by means of our Advertising.

Wholesale Terms:

2/6 size 20/- per dozen 4/6 size 36/- per dozen '

RED LION STREET, HOLBORN, LONDON, W.C. 1

Telephone: Holborn 3095. Telegrams: "SILPORANOB, HOLBORN, LONDON."

Doan's Thermometer

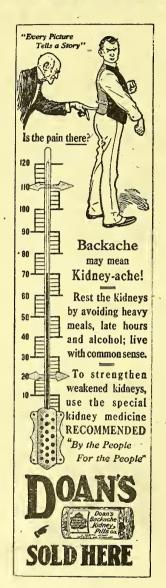
Gratis. Displayed at your shop front, this Thermometer will interest your customers and passers - by, and will constantly remind them that Doan's Medicines can be purchased from you. (For Prices of Doan's Preparations see overleaf).

If you will sign the Coupon below, and forward it, together with one of your address labels, we will have pleasure in despatching a thermometer to you free of cost. (Size, 21 in. by 5 in.)

Coupon: _

Please send, free of all cost, a Doan's Thermometer, which will be prominently displayed to the public.

Foster-McClellan Co.,	Name
8 Wells St., Oxford St.,	Address
London, W. 1.	



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STOCKTAKING BOOKS

IN NINE VARIETIES.

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We are the Largest Makers
of this class of Envelopes.
Many sizes & shapes in stock
& any size made to order,

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mends tears better than needle and thread, and does it more quickly. It is a thoroughly useful line to carry, and the profit is excellent. Send for particulars,

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TOILET PAPER.

12 oz.

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TO ALL OUR FRIENDS AT HOME AND ABROAD

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DOAN'S PRICE LIS		land	Ireland Channel Isles and Isle of Man.		
Doun's Dackacke 6-	er do en in dozen lot: 26/0 29/0	retail prices 8 6	-dozen lots 6	less than dozen lots	M nimum retail prices 2/9
Doan's Ointment	26/0 29/0	3/0	23/6	26/3	2/9
Doan's Dinner Pills Carriage forward. Best	10/9 12/0 prices on assort	1/3 ed lots, £7		11/9 nd, &c.,	1/3 £7 1 0).

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AND

Mr. E. S. FRANCIS, M.P.S., 233 BRISTOL ST., BIRMINGHAM.

THE SUGGESTION.

Our Rep.

"Then you think FIVE-POUND Direct Parcels of De Witt's Pills are really required?"

Mr. Francis.

"I DO. What is more, offer Discounts and give Journey A/c Terms as on larger parcels, and the *smaller* buyer has a chance to come in with you, and you'll find he will."

THE RESULT.

FIVE-POUND (F-P) PARCELS.

3 doz. 3/- (P.A.T.A.) K & B's @ 29/- : £4 7 0 Sells for £5 8 0 $\frac{1}{2}$ doz. 5/- , , , , , 49/6 : 1 4 9 , , 1 10 0

£5 11 9 £6 18 0

Less $2\frac{1}{2}$ % discount 2.9

Less 10% Window Display

Less 10% Window Display

Less 10% PRACTICALLY

\$2

NET PROFIT

\$\frac{10}{\\$\frac{10}{10}}\$ \text{ With Mo Outlay!}

NEARLY 40% PROFIT

CARRIAGE AND PACKING FREE.

INVOICE NET. JOURNEY A/C, i.e., 4 Months' Credit.

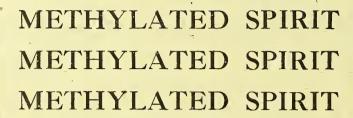
CASH DISCOUNT. 2.% 7 days from date of Invoice.

Take advantage NOW of these Terms.

ALL YOU NEED DO. WRITE THE LETTERS "F-P" on a postcard, attach a slip label, and post to-

E. C. De WITT & CO. LTD., Dept. C D., CROYDON.

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Finest British Distilled Spirit. Quality is Vital.

Direct from the Fountain Head. No other make is equal to ours.

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> METHYLATED SPIRIT METHYLATED SPIRIT METHYLATED SPIRIT

REDUCTION IN PRICE!



"Zinyl" Brand (Regd.)

TRUE SYNTHETIC PRODUCTS

THE Synthetic Otto of Neroli, "Zinyl" Brand, for instance, used in the proportion of 3 oz. to the gallon of spirit is equal to a concentration of 220 times, or about five times stronger than the "concentrated perfumes"; this gives an excellent basis for Eau de Cologne, and we suggest a reference to "Pharmaceutical Formulas" for many admirable forms for this and other perfumes.

Yet the present price of this Otto is only 10/- oz., against to-day's value of fine Oil of Neroli about 72/- oz, and 5 drachms of the Synthetic Otto are equal to one ounce of the natural oil.

Some of the Synthetic Ottos shows even greater advantages, e.g., Rose (described by the Chemist and Druggist in 1912 as "a triumph of Synthetic Chemistry") is still 21/oz., while fine Turkish Otto is quoted to-day at 120/- oz!

E .	
BERGAMOTTE. A substitute for	
Natural Bergamotte Oil	25/- lb.
CARNATION. Intensely fragrant,	
exactly resembles the flower	10/- oz.
GERANIUM. Much stronger than	-,
the natural perfume	5/-, oz.
HELIOTROPE. The true odoriferous principle of this delightful flower.	10/6 oz.
HYACINTH, Gives a fine delicate	
perfume	.9/6 oz.
JASMIN. We consider this Otto one of the best of the series	10/6 oz.
	20,000
LAVENDER. Stronger than the natural oil	5/- oz.
LILAC. A true synthetic product of	
great delicacy	9/6 oz.
LILY OF THE VALLEY, A perfect	
imitation of the flower	13/6 oz.
NEROLI. Of exquisite flavour: very useful in making Eau de Cologne	10/- oz
ORANGE BLOSSOM. A very deli-	Z O/ - OZ.
cate perfume, though not so power-	
cute perfume, mough not so powers	

ful as some of the series ...

PINK. An exquisite product, true to the flower	10/- 07
ROSE. One of the finest and most delicate Synthetic Ottos on the market. The "Zinyl" Brand passes the most discriminating tests, and is almost indistinguishable from	10/- 02.
genuine otto, and, though much stronger, costs but a fraction of the	
price	21/- oz.
ROSE RED. This is the Red Rose of Provence	21/- oz.
ROSE WHITE	18/- oz.
SWEET PEA. A novelty recalling the delightful odour of this favourite	10/
flower	
SYRINGA. Also a new product	10/- oz.
VIOLET. A universal favourite, in general demand	10/6 oz.
VIOLET DE PARME. A variation of the preceding Otto	
WALLFLOWER. Recalls this beauti-	

ful old-fashioned flower ...

Oriental Synthetic Otto

"ZINYL" BRAND

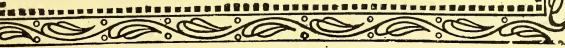
This beautiful product has a most powerful heavy odour absolutely reminiscent of the Far East and is a pronounced success, being supplied to various well-known houses - 17/6 oz.

H. E. STEVENSON & CO.

122 Great Suffolk Street.

London, S.E. 1.

... 10/6 oz.



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DISTINCTIVE DESIRABLE

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Each Bottle is packed in an Elegant Box or Gift Case. For your Christmas trade there is no better selection in price or quality on offer to-day.



PERFUMES :: FACE

POWDERS : FACE

CREAMS : TOILET

LOTIONS & SOAPS

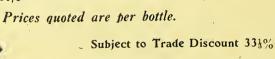


- 95/-

400 -- 10/6



600 -



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Sole Home & Export Agents-



ranesco, Berm, London." "Cevanesco Lordon" 801 -





Increase your Stocks for the Winter Trade

Winter always brings an increased demand for this valuable body-builder.

Now is the time to supplement your stocks of

'KEPLER'

(Trade Mark)

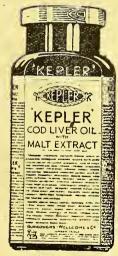
Cod Liver Oil with Malt Extract

You can recommend it because it carries the guarantee of Burroughs Wellcome & Co.

It always gives the customer satisfaction, and enhances the reputation of the seller.

It sells quickly and without trouble
—it yields sound profits.

Issued in bottles of two sizes



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112 .. 1/11 .. Showcard free.

Arthur H. Cox & Co., Ltd., Manufacturing Ch. Established 1839. Manufacturing Chemists,

The Lancet describes it as

"Mr. Benger's admirable preparation."



The British Hodieal Journal says:

" Benger's Food has by its exosilence established a reputation of its

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Branch Offices at: 117, Pitt St., Sydney, Australia: 90, Beekman St., Naw Tork, U.S.A. Canadian Agents: The National Drug and Chemical Co., Ltd., Montreal and Branches. SHOWCARDS AND HANDBILLS ON APPLICATION

WHEN YOU BUY

Zepto Pencils you invest in totally new and profitable business because Zepto interferes with nothing you now sel, and every sale is an extra. Moreover, up go your sales in all dental requistes directly you put in a show of

SUGGEST

an order of 6-dozen Pencils on our remarkably remunerative window-show terms, with which we send our latest trade attractor, the "All the Money in the World" Display (20" x 29").

AND YOUR MARGIN ON COST IS JUST

100%

TM FROZEN TM BRILLANTINE TM

a line in hasp-l-dded, aluminium-coloured oval tins with Northern Blue labels—six in an attractive show-carton with showcard. A sight-seller almost anywhere. HAVE WE HAD YOUR ORDER FOR 6 DOZEN WITH THE DOZEN BONUS

7/- per doz.

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P.A.T.A. 1/-

PERRO

is so attractively put out and presented that it sells everywhere. A lovely little card is now supplied with all orders.

5/3 per doz. P.A.T.A. 9D. SIX FREE WITH EVERY THREE DOZEN ORDERED.

NYAL'S FACE CREAM

notes everywhere and sells reaculy. Its union distinctive perfume and consistency earns it constant recommendation and repeats." Hence its success and wonderful sale.

Sells des everywhere and sells readily. Its unique quality

10/6 per doz.

per jar. 1 6

AND A SPLENDID SHOW-CARD WITH EVERY ORDER

THOS. CHRISTY & CO., 4-12 Old Swan Lane. LONDON, E.C.4.



A Weekly Journal of Pharmacy and of the Chemical and Drug Trades

THE CHEMIST AND DRUGGIST is in circulation and reputation the leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists and Druggists' So. iety of Ireland, and of other Chemists' Societies in the Overseas Dominions.

Subscription Rates. payable in advance to any part of the world, including a copy of The Chemist and Druggist Diary. Subscriptions may begin with the first issue of any month. Single Copy 9d. post free; Diary, 10s. post free. Postal orders and cheques should be crossed "Bank of Liverpool and Martin's Ltd."

Prix de l'abonnement annuel : le journal une fois par semaine, et l'agenda une fois par an, 20s., franco

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Index Notice.

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Winter Flowers Winter Session

This number concludes Volume XCIII, and an index for the volume, covering the second half of 1920, is in preparation. We shall be glad if those of our subscribers who desire copies will send us postcard requests, as the index will not be issued with the journal.

Wills.

MR. EDWIN BENNETT VIZER, Ph.C., 8 York Road, Tunbridge Wells, who died on November 6, left estate of the gross value of 4411. 7s. 9d.

MR. WILLIAM FOSTER, 8 St. Martin's Terrace, Chapeltown Road, Leeds, of B. Foster & Sons, chemical manufacturers, who died on July 3, left estate of the gross value of 17,550l. 1s., of which 6,291l. 1s. 8d. is net percently. sonalty.

MR. WILLIAM HENDRY SHEPHERD, 5 Union Terrace and 6 Bonaccord Crescent, Aberdeen, retired wholesale druggist, late of Souter & Shepherd, Broad Street, who died September 15, left personal estate of the value of 84,387l. 15s. 7d.

English and Welsh News.

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

Christmas Holidays.

The following houses, in addition to those mentioned in our last issue (p. 45), will be closed from Friday afternoon, December 24, to Tuesday morning, December 28:

Lofthouse & Saltmer, Ltd., Hull.

THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

The following houses will be closed for stocktaking on the dates mentioned:

Christy, Thomas & Co., Old Swan Lane, E.C., December 31 and January 1.

Heylett, C. J., & Son, Ltd., 35-42 Charlotte Street, E.C., December 28, 29, and 30.

Lofthouse & Saltmer, Ltd., Hull, December 29, 30, and 31

Public Institution News.

Cranbrook Guardians have accepted the tender of Mr. A. J. Gray, chemist and druggist, Hawkhurst, for medical appliances.

Mr. W. E. Phillipson, chemist and druggist, has been appointed by the West Derby Guardians as assistant dispenser at Walton Infirmary.

Mr. G. B. Walker, chemist and druggist, Greenwich, and Mr. M. G. J. Smith, dispenser, Lewisham, are candidates for the central executive committee of the Poor-Law Workers' Trade Union.

The Cheltenham Guardians, on the consideration of the dispenser's war bonus, made application to the Minister of Health to engage a part-time dispenser. The Minister, however, after conferring with the Medical Officer, has seen no reason to vary the Dispensary Regulation Order of April 17, 1899. It is now agreed to send the question of the Civil Service war bonus No. 102 to arbitration.

Window-dressing Competitions.

The first prize in a recent competition promoted by "Display" has been won by Mr. S. H. Plattin, chemist and druggist, Derby Road, Nottingham.

At Wakefield a shopping week was organised for the dates December 18 to 24 inclusive, and attractive prizes were offered for the best window-display in each trade.

In a window-dressing competition lately held at Aldershot the first prize in the chemists' section was awarded to the Junior Army and Navy Stores, Ltd., and the second and third prizes to Boots, Ltd.

The following, in addition to those previously mentioned (C. & D., December 11, p. 60), secured awards at the International Advertising Exhibition:

Prizes.—Mr. A. Mortimer, chemist and druggist, Leeds Road, Harrogate; Mr. G. Boulton, Old Road West, Gravesend; Parke's Drug Stores, Ltd.; Taylor's Drug Co., Ltd.

end; Parke's Drug Stores, Ltd.; Taylor's Drug Co., Ltd.

Diplomas.—Mr. J. Barker, chemist and druggist, Evington Road, Leicester; Benson's Cash Chemists, Dalton Road, Barrow in-Furness; Mr. G. Boulton, Old Road West, Gravesend; J. R. Cave, Ltd., chemists, Nevill Street, Southport; Mr. E. S. England, c/o Lasham's, chemists, High Street, Romford; Mr. J. W. Harper, chemist and druggist, Starbeck, Harrogate; Mr. M. J. Healey, chemist and druggist, Uxbridge Road, London, W. 12; Henry Hodder & Co., Ltd., chemists, Gloucester Road and Stapleton Road, Bristol, and New Bond Street, Bath (Mr. J. H. Kershaw); Mr. C. H. King, c/o Mr. G. J. B. Woolley, chemist and druggist, London Road, Leicester; Mr. E. C. Pratt. c/o Bewells, Ltd., chemists, Walworth Road, London, S.E. 17; Mr. A. E. Robinson, chemist and druggist, West Cliff Pharmacy, Bournemouth; Seymour, Ltd., chemists, Stapleton Road, Bristol; Mr. E. Skues, chemist and druggist, 221 Upper Tooting Road, London, S.W. 17; Mr. A. B. Sparrow, chemist and druggist, Highland Road, Eastney, Southsea; M. H. Stiles & Son, chemists, French Gate, Doncaster.

False-pretences Charges.

At Greenwich Police Court, London, on December 15, John William Charles Howlett, traveller, Pitcairn Road, Tooting, S.W., was committed for trial on charges of obtaining money by false pretences from chemists in connection with the supply of medicine-bottles. It was stated for the prosecution that the accused traded as the Aska Manufacturing Co. Evidence was given by Mr. Arthur Daniel, chemist and druggist, Upton Lane, E., who had paid 11. 14s. for bottles which were never supplied; Mr. Josiah Skewes, chemist and druggist, Islington, N., who had paid by cheque; Mr. John Douglas, managing director of Broadribb, Ltd., chemists, Hack-ney, E., who had paid 9t. 10s.; and Mr. Abram E. Howling, chemist and druggist, Green Street, Forest Gate, E., who had paid 51. 6s.

Tooth-extraction Fatality.

In the Westminster Coroner's Court, on December 18, an inquest was held on the body of James Dubois, waiter, Cambridge Street, S.W., who died after the extraction of some teeth. Mr. Douglas Burney, L.D.S., said that prior to extracting nine teeth he had been told that the deceased had bled profusely three years ago. The patient took gas quite well. Witness was sent for later in the day, and found him bleeding from two sockets. Witness plugged them and applied a composition, at the same time injecting equine serum. The bleeding still continued, however, and on December 1 Dubois was sent to St. George's Hospital, where he died. Dr. Leigh Phillips said he saw deceased on November 23, and gave him calcium chloride, to increase the clotting power of the blood. This was some days before the extractions, and witness gave him 10 gr. three times a day. At the operation witness gave him gas. Dr. I. Robertson, house surgeon at St. George's Hospital, said she saw the deceased when he was bleeding from his sockets. He was plugged several times, but the oozing continued. Ten c.c. of horse serum was injected, and some of the patient's wife's blood was given twice subcutaneously; and, as the bleeding still continued, it was decided to transfuse him with blood. Deceased took it perfectly well, and the bleeding stopped within an hour and did not recur. This was eleven days before death. The cause of death was uræmia, accelerated by hæmorrhage and the transfusion. The Coroner said that in a letter to him Dr. Waller said he thought Dubois was a true bleeder. Bleeding, he said, was transmitted from generation to generation by the daughters, males only being affected. A verdict of "Death from misadventure" was recorded.

Poisonings.

The following cases of fatal poisoning have been

recorded since our last report:
At Bethnal Green, London, E., Leah Levy (23) committed suicide by taking hydrochloric acid and lysol while of unsound mind.

A verdict of "Suicide while temporarily insane" was returned at an inquest held at West Ham, on December 21, on the body of Henry G. Smith, metal-polish manufacturer. A medical witness stated that death was due to strychnine poisoning, and that on the body "a quantity of opium and morphine" was found.

At an inquest held by the City of London coroner, on December 22, on the body of Herbert Owen, Fitzneil Street, S.E., who was found dead in a City hotel, it was stated by the widow that her husband had suffered from tuberculosis and had taken morphine and heroin for some years. Medical evidence was given to the effect that death was due to hydrocyanic-acid poisoning. A verdict of "Suicide while of unsound mind" was returned.

House-organs.

The following are among the house-organs that have reached us during the month:

"The Triangle" (Prescott & Co., Hulme, Manchester) has assumed a festive appearance in its current number, with coloured illustrations and elaborate initial letters. An appropriate greeting is given to its readers.

"Reflections" (International Icilma Trading Co., Ltd., London, N.W. 1) contains legends of the origin of the Christmas Tree and kissing under the mistletoe. company has recently introduced a face-powder identical in perfume with the cream, and it has such a demand that overtime is necessary to execute the orders. A bonus offer remains open until the end of this month.

"Glaxo Service Bulletin" (Glaxo, London, W. 1) contains a reply by Mr. Nathan to criticisms of his article published in a previous issue, while Mr. Hugo Wolff gives an impression of a conversation which prompted the article. Accounts of the careers of two prizewinners in a recent Glaxo competition and of the new incometax regulations are other features. A prize is offered for suggestions as to the use of empty Glaxo tins, and practical hints of various kinds are given on several

"Rubberware Sales" (Reliance Rubber Co., Ltd., London, E.C. 4) contains an instructive account of the manufacture of Reliance hot-water bottles, the various processes involved being well illustrated. The object is to assist those who sell hot-water bottles, by enabling them to interest their customers. Photographs of four window-displays which have been awarded prizes are reproduced, that of Mr. J. Austin Bayes, chemist and druggist, Rugby, being particularly attractive. The Rubber Club of Great Britain, which has recently been formed, is the subject of a note.

Puzzle Competition.

We have received from Mr. F. E. Bustard, chemist and druggist, 173 St. Ann's Road, London, N. 15, a copy of a set of ingenious couplets issued to his customers, prizes being offered for the best solutions. We subjoin a few specimens:

> Part of me through the air will fly And part beneath the ground doth lie. Twice as black as black can be, A powder white if you add I C. "This for Remembrance," saith the poet, Two maidens' names—you surely know it. Why run so fast, small son of mine Because I heard the clock . . .

We understand, however, that no one connected with a pharmacy is eligible as a competitor.

Birmingham.

Sanatorium treatment is not popular among Midland patients.

The Birmingham Insurance Committee has voted 5001. to the local nursing societies.

Diphtheria is prevalent in Birmingham; forty-three fresh cases were reported last week.

The taking up of research work and analyses by works' chemists is causing much dissatisfaction among private

A local chemist was recently experimenting with molten lead when it suddenly exploded, happily without serious results to himself.

The Men's Pension Fund connected with the Bournville Works has recently been strengthened by a gift of 80,000l. by Cadbury Bros., Ltd.

News reaches the city from the adjoining county of Staffordshire that some boroughs allow children to assist

traders after school hours, and others do not.

The city analyst, Mr. J. F. Liverseege, F.I.C., Ph.C., read, on December 16, an interesting paper on food and its adulteration before the members of the Society of Friends.

The Alchemy Masonic Lodge, No. 3950, has, per Mr. Fred Barlow, P.M., charity steward, subscribed 61. to the Birmingham "Mail's" Christmas-tree Fund. [Corrected note.1

Any profit made at the Birmingham Pharmaceutical Association's ball, which is fixed for January 26, 1921, is to be devoted to the Benevolent Fund of the Pharmaceutical Society.

Mr. J. F. Hall-Edwards, radiographer and medical practitioner, Edgbaston, has been elected to the city council. There are now three medical men and one pharmacist among the councillors.

The Lord Mayor (Alderman W. A. Cadbury) has decided not to give a civic ball or children's party this season, preferring to devote the expenditure which would have been involved by these functions to the fund for the relief of the unemployed. The Lord Mayor has also contributed 500l. to the fund, and has promised 100l. per month for five months.

The window of Hedges (Chemists), Ltd., in the Arcade, proving a profitable source of attraction. blaze of colour and light, and gives a lead to many traders, not only in pharmacy. Toilet-requisites are on sale, apparently, in almost every drapery, grocery, and hairdressers' establishment. A vacuum-flask is offered at one well-known shop for 3s. 6d.

Liverpool.

Mr. Harold Wyatt, J.P., Bootle, is recovering from his temporary disablement.

A Merseyside pharmacist who advertised in the C. & D. for an assistant is snowed under with applications.

The Christmas-week trade in the pharmacies, as elsewhere, has been brisk. Several records were broken.

The friendly rivalry in the window-dressing of pharmacies suggests a series of graded certificates of merit.

Advances of club subscriptions or levies to meet increased expenses are common. The Exchange News Room subscription is again being raised.

A collapsible box, said to be of American design, is in use here both for wholesale transport and for retail deliveries or removal from packing-cases to storage.

Mr. W. Wellings has resigned the hon, treasurership of the Liverpool C.A. after about a quarter of a century of much appreciated service. Mr. David Evans (retiring President) is acting as treasurer pending the annual meeting.

An artistic menu-cover has been designed for the inaugural dinner of the Merseyside and Southport Masonic Union. Mr. D. Roger Rowlands, ex-Mayor of Birkenhead, will preside; Mr. John Bain is D.C., and Mr. Richard Brown musical director.

Most of the local authorities in the Merseyside and West-Lancashire area are accepting the electric-supply scheme framed under the new Act. Pending the erection of super-stations, the existing plants will be interlinked for "give-and-take" supplies.

Severe weather rendered trade dull until within a few days of the Christmas holidays, which this year, retail pharmacists excepted, covers at least December 25-27 inclusive. Some assistants took three or four days off between December 12 and 16.

"Certain wholesalers are the salt of pharmacy," said Mr. Hugo Wolff in his address to the Liverpool Chemists' Association. The telegraph service, besides taking other liberties, made him say that "every day" he received a telegram, whereas his words were "that very day."

John Thompson, Ltd., remain closed from December 18 to January 3 for removal from 58 Hanover Street to 27-35 Duke Street. Two promotions are reported on the staff of John Thompson, Ltd. Mr. Cunningham, one of the company's representatives, joins the managerial staff, and Mr. Aspinall, of the town department, takes to the road.

The young people's New Year party, which the Liverpool Chemists' Association is organising at the Royal Institution on January 5 partakes of the nature of an experiment. At four o'clock eighty or more children will assemble. All members and associates are welcome to attend the entertainment following the tea and concluding at nine o'clock. Father Christmas and a conjurer will visit the throng.

The C. & D. Diary, 1921, is as welcome as ever, and better than ever. The "1921" on the cover (omitted in so many of the stationers' diaries) is twice given, and

would be acceptable a third time on the back of the cover. The triple calendar is highly useful in the daily work of a pharmacy. The "Trade Directory" and "Buyers" Guide" make the manual indispensable, while the literary contents add materially to the value of the volume.

Shemeld.

Several of the city chemists have gone in for elaborate window-shows, that of Messrs. Newsholme being specially admired.

The general opinion of the Christmas trade is that there has been a shortage of money. This, of course, is not to be wondered at in view of prevailing conditions.

While cleaning a pipe with "vitriol" and a forcepump at the works of the Sheffield Chemical Co., Ltd., on December 18, a man named Worthy was severely injured owing to the nozzle coming off the pump.

Mr. G. R. Airey, chemist and druggist, who is a member of the Sheffield Pharmaceutical Committee, has been appointed manager of Messrs. Boots' High Street branch. Mr. Cox, who was with Mr. Airey at Broomhill, is managing the Darnall branch of the company.

Mr. Charles A. Gardner, chemist and druggist, proprietor of the Sheffield Magnet Co., was the defendant in an action by the Vanadium Co., Ltd., at the recent West Riding assizes, for the recovery of 2,508%. in respect of goods sold and delivered. After an adjournment it was announced that a settlement had been agreed upon by which plaintiffs should receive 435l., with no order as to costs.

Miscellaneous.

Fire.—The premises of The British Drug Houses, Ltd., Graham Street, London, N. 1, were the scene of a slight outbreak of fire on December 15. The damage was confined to a workshop.

FOOD ORDERS REVOKED .- The Food Controller has, inter alia, revoked the Oil and Fat Compound (Licensing of Manufacturers and Requisition) Order, 1918, the Seeds, Oils, and Fats Order, 1919, and the Cattle Cakes and Meals (Licensing) Order, 1919.

COST OF LIVING.—The average level of retail prices of all commodities taken into account in the statistics prepared by the Ministry of Labour (including food, rent, clothing, fuel and light), was 169 per cent. above that of July 1914 on December 1. The corresponding figure was 176 per cent. on November 1.

GOVERNMENT PROFITS ON DRUGS .- The trading account and balance-sheet in connection with the maintenance of adequate supplies of material drugs during the war shows a net profit to March 31, 1919, of 23,487t, the account being during its life more often in credit than in debt to the Exchequer. The steps taken by the National Health Insurance Commission to maintain during the war adequate supplies of essential drugs are described fully in Command Paper 183 of 1919.

ALLENBURYS ATHLETIC CLUB.—The Allenburys Athletic Club, Bethnal Green, London, E., has concluded a very successful first half of its football season, the first eleven having been through the season without being defeated. The members of the eleven have been brought into contact with teams representative of some of the biggest firms in the district, and have played six matches, winning four and drawing two. In addition, they have successfully competed in the first two rounds of the Walthamstow Charity Cup. In the second of these matches they defeated the present holders of the cup.

FACTORY KEYS DEMANDED.—The Metropolitan police have been informed that on December 18, just before midnight, six masked men knocked at the side door of a house adjoining the factory of Price's Patent Candle Co., Ltd., York Road, Battersea, and demanded the keys. The wife and daughters of a member of Messrs. Price's staff, the only people in the house at the time, were able to satisfy the men that the keys were not there, and that no entrance to the factory from the house existed. It appears that Messrs. Price had already taken precautions in view of the possibility of raids for incendiary purposes.

PHARMACY CLASSES DISCONTINUED.—At a recent meeting of the Blackpool education committee, a letter was read from the Board of Education to the effect that, in future, the Board would not recognise any course of subjects in preparation for Part II. of the Pharmaceutical Society's Qualifying examination unless the Society had first signified its approval of the course. Having already approved courses in nine technical colleges, in which there is provision for 700 students, the Society is of the opinion that more are not required. The Blackpool education committee is discontinuing its classes in dispensing, pharmacy, and materia medica.

Bureau of Mycology.—The Imperial Bureau of Mycology has begun work at its headquarters at 17-19 Kew Green, under the directorship of Dr. E. J. Butler. The Bureau is the outcome of a proposal adopted by the Imperial War Conference in 1913 that a central organisation should be established for the encouragement and co-ordination of work throughout the Empire on the diseases of plants caused by fungi, in relation to agriculture. The funds are provided by contributions from the various Dominions, Colonies, and Protectorates. It will be a central agency for the accumulation and distribution of information and for the identification of specimens sent in from all parts of the Empire. There are at present over fifty officials engaged in this work in the overseas parts of the Empire.

Dyestuffs (Import Regulations) Bill.—The executive council of the Chemical and Dyestuffs Traders' Association met at the Commercial Sale Rooms, Mincing Lane, on December 15, to consider the position of the traders and distributors as affected by the Government Dyestuffs Bill. Mr. F. T. T. Reynolds, chairman of the association, who presided, said that there had been too great a tendency in the past on the part of the Government and the manufacturers to disparage the merchant section of the community. They had put in a claim that they should be directly represented on the Advisory Committee, on whose recommendation the Government would act with regard to the issuing of licences. He had reason to believe that that claim was seriously being considered.

In the Courts.—At Bow Street Police Court, London, on December 20, Cecil Sutherland Waite, a deputy controller under the Munitions Act at Calcutta, Henry Patrick Blackburn, of Spalding & Co., merchants, Calcutta, and Percy Henry Michaels, commission agent, were charged on remand with conspiracy and cheating within the jurisdiction of the Government of India. The charges were made in respect of contracts which Waite was alleged to have placed with Spalding & Co. for large quantities of linseed oil, turpentine, and soluble oil. In one case, according to the depositions, 2,483l. was paid by the Government for 7,946 gallons of linseed oil which was never delivered, and it was contended in other cases that exorbitant prices were charged. The hearing was adjourned.—At Mansion House Police Court, on December 20, S. Schneider was sentenced to three months' hard labour for stealing, by means of a trick, eyeglass-cases belonging to J. L. Bruce, Ltd., opticians, Clerkenwell Road, E.C. (C. & D., December 18, p. 49).

MEETING OF INDUSTRIAL CHEMISTS.—By invitation of the Newcastle-on-Tyne Chemical Industry Club, members of the Newcastle section of the Society of Chemical Industry attended a joint meeting held on December 16. The meeting, which was presided over by Dr. J. H. Paterson, was an informal one. There were exhibits of post-war glassware by Messrs. Brady & Martin, Ltd.; an automatic carbon dioxide recorder was shown and explained on behalf of Mr. W. S. Coates; while Mr. J. McMillan (The United Metal Engraving Co., Ltd.) showed specimens of chemical engraving and colouring of sheet brass as applied to instrument and other dials. He also described the various processes employed in producing the finished articles. Dr. W. B. Davidson showed a novel form of burette and other apparatus, and Mr. F. H. Jennison also had an exhibit. Coffee was served during the evening. Through the courtesy of Professor P. P. Bedson, a visit to Armstrong College, Newcastle, was paid on December 18 by the local members of the Society of Chemical Industry and of the Newcastle Chemical Industry Club, when the laboratories were inspected. Tea was provided at the College.

Irish News.

Brevities.

Mr. R. Armstrong, Ph.C., Cootehill, has opened a branch in Rostrevor, co. Down.

A military party visited Maghera, co. Derry, recently, and placed under arrest Mr. John Walsh, Ph.C., Maghera. Mr. Walsh was arrested and released about two months ago.

Mr. R. Morrow, Ph.C., who has opened a pharmacy at 15 Conway Square, Newtownards, served his apprenticeship with Mr. S. G. Mackay, Newtownards. He was subsequently with Grattan & Co., Ltd., Corn Market. Belfast.

A Londonderry firm of chemists whose premises were burgled have published the following advertisement: "To all whom it may concern,—If the person or persons who took the manicure sets, perfumes, and safety razors at the door-cases last night will call at the shop they can have the strop left behind to complete the Auto-razor outfit, and at the same time have their hand dressed."

Referring to the note in the C. & D., December 18. p. 49, regarding the incendiary fires in Cork, John Blair & Son, St. Patrick Street, inform us that fortunately they did not suffer damage as the fire was checked before it reached their premises. The only chemist's premises destroyed were those of Mr. R. Sunner, Ph.C. The building was burned to the ground, the entire stock, books, and contents of the safe being lost.

Scottish News.

Chemists' Friendly Society.

The annual report and statement of accounts of the Chemists' Friendly Society, as at July 4, has been issued. It is mentioned that about 260 members have been admitted during the year. The retiring directors, Messrs. Thomas Guthrie, G. Shiach Kitchin, J. Lennox, G. McKay, and R. McNinch, are eligible for re-election. The trustees and manager also retire, and the board recommends their reappointment. The cash account shows that advances amounting to 1 876l, have been received from the National Insurance Commissioners; benefits granted amount to 564l, and investments to 1,230l. The Society's invested capital stands at 14,862l., of which 8,699l. is in Government securities and 6,163l. is in the Insurance Commissioners' Investment account.

Medical Service in Scotland.

The Consultative Council on Medical and Allied Services of the Scottish Board of Health have issued an interim report which gives a scheme of medical service for Scotland. It is recommended that the organisation of the health service should be based upon the family as the normal unit, and that public provision should be made for a complete medical service for the whole population of the National Insurance grade. In regard to the pharmacy service the report states:

The arrangements for the dispensing and supply of medicines or medical and surgical appliances in connection with the proposed medical service should follow the provisions of Section 15 (5) of the National Insurance Act. 1911, which require that the dispensing of medicines shall be undertaken only by persons, firms, or bodies corporate, entitled to carry on the business of a chemist and druggist under the provisions of the Pharmacy Act. 1868, as amended by the Poisons and Pharmacy Act. 1908; and that all medicines supplied by them shall be dispensed either by or under the direct supervision of a registered pharmacist. The general principles of these provisions should apply to the pharmacy service.

Sir Donald MacAlister was the chairman and Dr Norman Walker vice-chairman of the Committee. Among the members were Mr. J. Rutherford Hill, Ph.C., and Mr. J. F. Tocher, D.Sc., F.I.C. The report is obtainable from the Stationery Office for 2d.

Attempted Poisoning.

In the High Court, Glasgow, on December 20, Enoch Reid, an electrician in the employ of the Glasgow Corporation, was charged with attempting to murder his wife by poisoning her (C. & D., October 16, p. 49). He pleaded "Not guilty." His wife gave evidence to the effect that during last February she had a suspicion regarding a liquid added by the prisoner to medicine that she was taking. Later, on returning home after a fort-night in hospital, she noticed that pills which she was in the habit of taking had been tampered with. On the advice of her sister, she took them to a chemist. witnesses were called on the second and concluding day of the trial. Annie Templeton (46), who was in charge of Dr. Wilson's shop at 13 Springfield Road, said that a daughter of the prisoner was in the habit of coming for asafetida pills. They were white and glazed. Mr. Alexander Sinclair, manager to a firm of wholesale chemists, deposed that the pills were composed of equal parts of aloes, asafetida, and soap, with a little syrun of glucose. The chemist who analysed the contents of the bottle, Mr. Arthur Wainstein, said that on a rough analysis he suspected lead with a trace of arsenic. he tried again and got nothing. In the second test he found no trace of lead. That test was to find arsenic, but he did not remember how he arrived at the result. He thought he found calcium, which was quite harmless. Mr. Frederick William Harris. F.I.C., the city analyst, gave the result of his analysis of the articles sent him by the police. The chocolate cream, he found, contained a considerable quantity of metallic mercury. There were holes bored in the pills, and these had been filled with brass filings and white lead. The filling of the pills had been most cleverly done. The liquid was found to be milk, with a considerable proportion of white lead. Professor Glaister said that the various poisonous substances mentioned in the indictment would all produce sickness such as vomiting, diarrhea, peritonitis, and death, if taken frequently enough. After further evidence had been given Reid was found guilty, and was sentenced to seven years' penal servitude.

Brevities.

The opening of a pharmacy in Denbeath, Fife, is fore-shadowed.

Mr. Martin Meldrum, Ph.C., Ayr, is about to effect alterations and improvements to his business premises.

Mr. John Donaldson chemist and druggist, Portknockie, was a successful candidate at the recent municipal election.

A model of the proposed war memorial for West Kilbride is on view in the shop window of Mr. A. G. Glen, chemist and druggist.

Mr. James Lohoar, chemist and druggist, Hamilton, has been reappointed to the management committee of the local Merchants' Association.

Among the window-displays recently mentioned in the "Clydebank and Renfrew Press" are those of Messrs. Hendry, Macdonald & Mackinnon.

An outbreak of fire, on December 15, caused considerable damage to the premises of William Forrest & Son (Paisley), Ltd., Burnbank Chemical Works, Paisley.

The aerodrome at East Fortune, covering many acres, is to be converted into a national sanatorium. The sanatorium will unify control for treating tuberculosis in Scotland.

Leith Branch of the Scottish Pharmaceutical Federation: President, G. D. Thomson; Vice-President, J. Noble; Secretary and Treasurer, G. P. Cooper, 5 Anchorfield, Newhaven, Leith. (Corrected notice.)

Mr. W. M. Cameron, chemist and druggist, was one of the prize-winners in a recent football competition. Mr. Cameron, who is an assistant with Mr. John Cameron, chemist and druggist, Inverness, shared, with six others, the sum of 1,000%.

At a meeting of the University Court of St. Andrews, Dundee, on December 18; the proposal submitted by a conference of the four Scottish University courts in favour of increased fees received approval. The increases range from 33; to 50 per cent.

Ex-Provost J. Macintyre, chemist and druggist, North Berwick, was, on December 16, the recipient of a large portrait in oils, by Mr. David Allison, A.R.S.A., and some silver-plate, presented in recognition of his public work during a period of twenty-seven years.

Edinburgh.

Perfumes and face-powders may now be bought in many drapery establishments, even in the side streets.

St. Cuthbert's Co-operative Association, Ltd., is having trouble with some of its employees over the questions of wages and hours.

Many chemists will close at 1 P.M. on Christmas Day. The majority will close all day on New Year's Day, and some will take the customary half-holiday on Wednesday.

The premises of Duncan, Flockhart & Co. will be closed on Christmas Day, on December 28 and 29 for stocktaking, and January 1, 3, and 4 for the New Year holidays.

Trade between Leith and Hamburg is stated to be steadily returning, and in some industries to have almost reached 'pre-war level. All kinds of glassware are included in the consignments.

The Scottish Pharmaceutical Federation Council, Edinburgh branch, having been approached by various members of the trade in regard to closing on Christmas Day, consider that in view of this day falling on a Saturday, the closing of chemists' shops be left to each proprietor's discretion. It is, however, recommended that New Year's Day be a complete holiday. The Council strongly recommend all chemists, in view of the greatly increased costs in all directions, to adopt without exception the scale of minimum dispensing charges published each month in the Scottish Chemists' Retail Price-list.

Glasgow.

The Health Committee is shortly to consider a report as to (1) the extent of food adulteration; (2) the operation of the Food and Drugs Acts, their defects, and method of application; (3) the methods of inspection employed (a) in detection and (b) in prosecution.

The judgment, whereby the action for 500l. damages against the corporation by the father whose boy died through eating belladonna berries in the Botanic Gardens, was dismissed in the Outer House (C. & D., I., 1920, p. 780), was at the Court of Session, on December 18, recalled and an issue for the trial of the action by jury approved.

Almanacs and Calendars.

Sangers, 258 Euston Road, London, N.W. 1, distribute a desk calendar (4½ in, by 6 in.) with movable indicator. This, we have found by experience, is one of the most convenient forms of calendar for constant use.

Mr. A. Mortimer, F.C.S., chemist and druggist, 8 Cambridge Crescent and 9 Leeds Road, Harrogate, issues a wall calendar (11 in. by 5 in.) having an artistic silhouette framed in an oval above the tear-off portion.

James Woolley, Sons & Co., Ltd., Victoria Bridge, Manchester, issue "The Scientists' Reference Book and Diary" (5½ in. by 3 in., 3s. 6d.) for the twenty-third year. On comparing this leather-bound volume with its immediate predecessor, we find that the literary matter, always concise but comprehensive, extends to several more pages. The fact that the index occupies eight columns is a sufficient indication of the thoroughness with which the work of compiling volumetric and other data has been done. A list of scientific institutions and hints on first-aid are other salient features. Among the information of a general character there is a table of vitamines in foods, and atomic weights are given according to the international list for 1921.

WALSALL Technical School is advertising for a teacher of botany.

Legal Reports.

Camphorated Oil Case.— At Old Street Police Court, London, on December 17, William Warren, drugstore proprietor, 5 Bonner Street, E. 2, was summoned for having sold camphorated oil 25.9 per cent. deficient in camphor. An official of the Bethnal Green borough council stated in evidence that the defendant, on being told by witness that the oil would be analysed, said that it was sold as "camphor and oil." The purchaser had not been informed of this, however, and the bottle from which the oil was served was labelled "camphorated oil." A fine of 51. was imposed.

Delivery to Eugers .- Judge Graham, K.C., gave a considered judgment, of considerable importance to traders considered judgment, of considerable importance to traders who despatch goods by carrier or through the post, in the Bow County Court on December 1. The plaintiffs in the action were J. Evershed & Co., Fairfield Road, Bow, printers and stationers, and they sued a number of firms all over the country for outstanding accounts. The registrar of the court refused to accept, as proof of delivery physically to the buyers, the carrier's receipt produced by the plaintiffs. The point was put before by produced by the plaintiffs. The point was put before his honour to decide, and Judge Graham delivered the following considered judgment: "Sec. 32 of the Sale of Goods Act says that where, in pursuance of a contract of sale, the seller is authorised or required to send the goods to the buyer, delivery of the goods to the carrier for the purpose of transmission to the buyers is prima facie deemed to be delivery of the goods to the buyer. This section does not say that the authority must be in writing, or must have been given in any particular way. And in my view it may be presumed to have been given if the facts justify such an assumption. In these cases before me the buyers carried on business at considerable distances from the sellers, and in such cases it is the practice to deliver the goods to the carrier, and I think the buyer, in the absence of any instruction to the contrary, must be presumed to have intended the goods to be sent to him in presumed to have intended the goods to be sent to him in the usual manner, and have given his authority. The goods were, in fact, delivered to carriers, and as delivery to the carrier is delivery to the buyer, both by reason of the above section and according to well-settled law, there must be judgment for the plaintiffs, with costs."

Pharmacy Act (Section XVII.) Case.—At ford, on December 17, a summons was heard against Mr. ford, on December 17, a summons was neard against Mr. William Kendall Jackson, chemist and druggist, a partner in the firm of Harrison, Parkinson & Co., chemists, Sunbridge Road, and Mr. Norman Huggins, chemist and druggist, an assistant of the firm, for not entering particulars of the sale of 1 oz. of hydrocyanic acid in a book kept for the purpose. Mr. W. H. Leatham, who appeared for the prosecution, said that the proceedings were taken under Section XVII. of the Pharmacy Act, 1868. The case arose out of the recent death by points. soning of Mr. J. O. Moulson, a retired Bradford chemist (C. & D., November 13, p. 51). Mr. Moulson had called at the Sunbridge Road shop, saying that he wanted hydrocyanic acid for poisoning a dog, and was supplied with the poison. When a detective called later, to make inquiries respecting Mr. Moulson's death, it was found that particulars had not been entered in the book provided for that purpose; he was informed that this had not been done because Mr. Moulson was a retail chemist, and the sale had been made at a wholesale price. Mr. H. M. Dawson, for the defence, submitted that his clients were entitled to sell the poison in accordance with the section, which included a special proviso as to the sale of poisons by a wholesale dealer to a retailer. Mr. Jackson had known Mr. Moulson as a chemist for over thirty years; the defendants did not know, however, at the time that he had been out of business for the past six years, or they would not have sold him the poison. The onus to inquire, he submitted, was not upon the defendants; if that were so, the proviso would be made absolutely inoperative. His clients never sold hydrocyanic acid by retail, and in this case it was, as usual, sold at a wholesale price. The stipendiary magistrate held that it was incumbent on defendants to have made further inquiries. The firm was one of high standing, and he felt sure that it was the desirc to take every precaution to observe the law; but in this particular case he did not think they had kept strictly to the proviso laid down. In the circumstances the case would be met by defendants paying the costs of the summons.

Partnership Question.—In the City of London Court, recently, before Assistant Judge Jackson, Mr. W. Suter, 6 Durley Road, Stamford Hill, brought an action against Mr. A. J. Warner, chemical import and export merchant, 38 Penshurst Road, South Hackney, for dissolution of the partnership existing between them since December 13, 1919. Mr. H E. Elson, defendant's solicitor, asked that the case should be transferred to the Chancery Division of the High Court, as the assets Mr. Foster Grave, plaintiff's solicitor, said they did not exceed 500%. The matter had stood over for the defendant's affidavit to be answered. Elson now read this, in which the defendant said the value of the whole of the stock, credits, and property of the partnership was 1,104l. Excluding the value of the goodwill, and after deducting the liabilities, the net the goodwill, and after deducting the habilities, the net assets exceeded 600l. An item of 313l. for stock comprised acetylsalicylic acid, 56 lb., at 4s. 6d., 12l. 12s.; nerolin (yara yara), 300 lb., at 11s., 165l.; phenazone, 70 lb., at 14s., 49l.; resorcin (technical quality), 60 lb., at 10s., 30l.; amidol, 57 lb., at 11s., 31l. 7s.; and hydroquinone, 56 lb., at 9s., 25l. 4s. The plaintiff had answered that affidavit, and he said that the whole of the stock, credits, and property of the partnership were of the value of 391l. 12s. 10d. only. He was willing that the stock and furniture should be sold at the figures he had put upon them, and the defendant could take them over at that price. Mr. Elson added that Section 67 of the County Courts Act stipulate that the Court should have jurisdiction in partnership matters for the dissolution or winding-up of any partnership in which the whole property, stock, and credits do not exceed 500%. He urged that that meant the gross assets, and that they had not to take into account the debts due to the partnership. In the second exhibit plaintiffs said that the nerolin is worth 105*l*., there being 300 lb. at 7*s*. The defendant put it at 165 lb., and he exhibited a trade-list showing that the price at the present time was 12s. 6d. a lb. Then plaintiff said that resorcin belonging to the partnership is worth nothing, on the ground that it is pharmaceutical, and not technical, and that it is old, discoloured, and unsaleable. The defendant said it was worth 10s, a lb. Mr. Foster Grave said it was immaterial to the plaintiff whether the case was tried in that court or the High Court, but he did not want to be sent to the High Court and then obtain the censure of the High Court for being there. Assistant Judge Jackson said he thought, on looking at the matter, that the assets exceeded 500l., and therefore he must remit the action to the High Court to be tried there.

Claim for Salary.—A claim for 100%, representing two quarters' salary, by Professor Arthur Robert Ling, professor of brewing at Birmingham University, against the Milton Manufacturing Co., Ltd., Bunhill Row, London, was heard by Mr. Justice Greer in the King's Bench Division on December 21. Mr. Gentle, for plaintiff, said that in May 1917 defendants appointed plaintiff as their consultant at a salary of 200% a year. He was to act and advise on the products made by the defendant company, and the application of the Milton fluid to various industries. The appointment was of a confidential character, and was to be subject to three months' notice on either side. Two quarters' salary remained unpaid. The defendents, and in fact discharged himself. Counsel added that when plaintiff sent in an account to defendants for remuneration due, there was no reply—neither denial nor admission. Plaintiff gave evidence that he took up his appointment at Birmingham in April this year. It involved his living in Birmingham. He saw Mr. Morrison, of the defendant company, in July. They talked about certain work, but nothing was said as to terminating the agreement. Mr. Morrison

discussed business with him just as if he was the company's consultant chemist. Witness had, since his company's consultant chemist. Witness had, since his appointment at Birmingham, carried out bacteriological work for the defendants. At the University he was better prepared to carry out this work than in private practice. Cross-examined, plaintiff said his agreement with defendants was to consult with them and do research work, to keep a watchful eye on all possibilities of introducing the fluids to industries, and supervise the manufacture and analyses of defendants' fluids. He formerly carried on hysiness at Great Tower fluids. He formerly carried on business at Great Tower Street, which was near defendants' premises. He had not paid more than half a dozen visits to defendants' premises. Mr. Moresby (for defendants): Did you give defendants any intimation that you intended to accept this professorship before you were appointed? No; as soon as I was appointed I told them over the telephone. Plaintiff said that when he went to Birmingham he closed down his London business and gave his analytical work to a friend. He did not give away any of his consultant work. Replying to the judge, he said he was allowed by the University to retain his private practice so far as it was consistent with the performance of his University duties. It would be consistent with those duties to travel and to work for the defendants. Plaintiff said he could efficiently do the work involved by his agreement with defendants while professor at Birmingham University.
For the defence, Mr. Harry Scott Morrison, sales
manager to defendants, said if plaintiff had been at Birmingham at the time he was appointed the company's consultant they would not have appointed him. He could not efficiently do the work he was required to do living at Birmingham. Cross-examined, witness said plaintiff did three tests for the company afterwards. but he did them at his own request. Mr. Justice Greer, in giving judgment, said the agreement providing for supervision seemed to involve something more than could be expected of a professor carrying on duties in Birmingham. His lordship was not satisfied, however, that at the interview between plaintiff and Mr. Morrison anything happened which amounted to renunciation by plaintiff of his employment or the acceptance by defendants of a renunciation or anything that amounted to an agreement that the employment should be terminated. In his lordship's judgment, defendants did not dismiss plaintiff or give him notice, but left him under the impression that he could continue to act as their consultant notwithstanding his acceptance of the professorship. There would be judgment for plaintiff for the amount claimed,

Zee-kol and Zykol. — An interesting trade-marks dispute came before Mr. Justice Eve, in the Chancery Division, on December 10, in an appeal, by way of motion, by Mrs. Violet Nathan, trading as the Zee-kol Manufacturing Co., from the decision of the Registrar of Trade Marks to proceed with the registration of a mark in which the word "Zykol" occurs. The application to register the Zykol mark (391,629) was made by J. Brown & Co., Ltd., of the Chemical Works, Savile Town, Dewsbury, manufacturing chemists, in respect of chemical substances which the Registrar said were used for agricultural, horticultural, veterinary, and sanitary purposes, and Mrs. Nathan unsuccessfully opposed the registration before the Registrar. Mr. Kerly, K.C., said Brown & Co. sought to register Zykol as the name for a liquid disinfectant. It really was Lysol, and Zee-kol was associated with Zambuk, a well-known antiseptic continent for wounds and sores and skin troubles primarily. It had been very successful. It was also sold for internal use as pills, and, in addition, as a soap. There was evidence from all over England by pharmaceutical chemists that it was very largely sold. The Registrar was told that since July 1916 the appellant was using her registered mark Zee-kol in connection with goods belonging to Class II. for ointments for dogs and horses. The Registrar said that the words, if used for the same class of goods, were two near, but the registration of the word "Zee-kol" was in respect of medicines for human use. Lysol, on the other hand, was a disinfectant from tar products, originally made under a German patent, since upset, by mixing tar-oils

rich in phenols and cresols with linseed oil or rosin, and saponifying the oil or rosin by caustic potash solutions and spirit of wine, heating with a reflux cooler until the mixture is homogeneous. It would be used primarily by persons of experience, like surgeons and nurses, who were not the sort of persons easily to be deceived. It was possible, the Registrar said in his decision, that any resemblance which the word "Zykol" might have to "Zee-kol" might be rather against the applicants than in their favour, because certain persons in the profession might not regard a so-called scientific production like Zee-kol with much favour. The Registrar came to the conclusion that there was no chance of the goods coming into competition. The statute prohibition was based on the rule that no trader ought to sell his goods on the reputa-tion of another trader. There was danger of deception here, and of misrepresenting the application to be of the nature of a disinfectant for sterilising purposes for use by surgeons and nurses included in Class II. This would not cover any disinfectant used on wounds, because that went into Class III. Mr. Kerly remarked that how one could limit a description of goods by the persons who bought them was beyond his understanding. The hear ing was continued on December 14, when Mr. Kerly, K.C., replying on the whole case, said that although it might be true the respondents' production was sold for sterilising purposes, and it was used by surgeons and nurses for the cure of the human body. and for some of the ills that the appellants' ointment and soap were used for, it was also shown that it was largely used by the public as a whole, and might be easily confused by persons in a druggist's shop. "Zykol" was so similar that the purchaser was so similar that the purchaser might think he was only buying a fluid form of the Zeekol remedies. Mr. Whitehead, following Mr. Kerly, said that appellants had advertised their preparations very largely, and as both preparations were of an antiseptic nature, it was perfectly easy for people to be confused by the similarity of the names. After legal argument his lordship, giving judgment, said in this appeal it was not disputed by the respondents that the mark phonetically resembled the appellants' word and so might be calculated to deceive. The Registrar, however, decided that the respondents' fluid disinfectant was used for sterilising purposes by nurses and surgeons, and as a fact that it was not such a pre-paration as would be used in an ordinary way by the ordinary public, but only by persons of experience, such as surgeons and nurses. How far that finding of fact was justified by the evidence before the Registrar, his lordship said he could not stop to consider, as its soundness was questioned on the hearing of the present appeal. In fact, the respondents now admitted that their preparation was intended for, and was, in fact, largely used by the public in general, and was not restricted to surgeons and nurses. The Registrar was of opinion the sale was limited to a class of people who would not buy the appellants' preparations, and it was argued that ointment and soap were not medicines for human use. He (his lordship). however, had looked into the definitions of medicine, and as a result he thought the word applied not merely as understood in common parlance to something to be taken internally, but something to be used externally. In his opinion, therefore, both the ointment and the soap of the appellants and the fluid disinfectant of the respondents must be regarded as medicines, as they were also used for similar purposes. It came, therefore, to this: that, both being medicines, was there such similarity between the names of the preparations of the parties as to be calculated to create confusion, and possibly work injuriously to one or other of the parties or to the public at large? There might be customers who were in the habit of buying the preparation of the appellants who were not very highly educated, and perhaps ignorant or forgetful of the exact name of the remedy they were taking. He (his lordship) thought such a customer might think a bottle of Zykol would serve the same purpose as the appellants' He thought that the risk of mistake in these names was inevitable, and the registration ought not to proceed. The appeal must therefore be allowed, and respondents must pay the costs.

The Profiteering Act.

COST OF THE ACT IN SHEFFIELD.

THE available details of the administration of the Profiteering Act in Sheffield during the past twelve months indicate that a halfpenny has been refunded at a cost of 100%, to the ratepayers. This was one of two cases in which a refund was ordered; in the other, the decision that a chemists' company should return 6d. to a customer was quashed on appeal.

COST OF DISTRIBUTION.

A conference of selected members of the Central Profiteering Committee has held the first of a series of sittings with the object of inquiring into the number of transactions customary in the distribution of commodities. It is understood that instances have been disclosed in which goods have been needlessly transferred from one vendor to another before reaching the public. The conference is representative of the National Chamber of Trade, the Consumers' Council, and other bodies, and will meet from time to time until its inquiries are completed. It has been decided to invite evidence from commercial organisations and from individual traders. It is requested that communications on the subject be sent to the Secretary, the Central Profiteering Committee, 54 Victoria Street, London, S.W.1. Mr. Marshall Freeman, barrister-at-law and pharmacist, has accepted the office of chairman

Interim Report on Glassware.

The sub-committee appointed by the Standing Committee on Trusts to inquire into the operations of "any combination or combinations which may exist in the glassware and glass-bottle trades" has issued an interim glassware and glass-obttle trades. This issued an interim report on glass bottles and jars and scientific glassware [Cmd. 1,066, 2d.]. Mr. P. F. Rowsell, J.P., is chairman of the sub-committee. The following prices are given for dispensing-bottles in 1914 and 1920 respectively: 4-oz., 10s. 8d., 31s. 10d.; 8-oz., 12s. $6\frac{1}{2}d$., 36s. 10d.; 12-oz., 5s. $10\frac{1}{2}d$. [? 15s. $10\frac{1}{2}d$.], 49s. 3d. We append some of the interesting passages of the report:

With regard to the manufacture of medical bottles, the trade is confined principally to the North of England and London. Generally speaking, this class of bottle is made by hand, but machinery is being installed with a view to

increased production.

increased production.

From evidence given to us by users of practically every type of bottle made in this country, we learn that, while the supplies are now improving, deliveries, especially of modical bottles, are still very uncertain, and in many cases orders have been cancelled months after they have been placed, that the quality is much inferior to the pre-war standard, and that prices and shortage of supplies made it difficult for some time for buyers to continue their industries. Witnesses representing purchasers have further informed

Witnesses representing purchasers have further informed is that they have complained many times about the prices they have received from manufacturers have invariably been that the increases in costs of labour, fuel, and materials have been such that they could not help themselves. They have also stated to us that prices quoted to them by manufacturers in various parts of the country have been practically the same, and such as to indicate the existence of a "typing" in the treads.

ring" in the trade.

It will be readily understood that the increase in the price It will be readily understood that the increase in the price of medicine bottles is reflected in the price of a bottle of medicine, and it is, perhaps, in this instance, more than in any other, that the increased price of a bottle shows itself to the general public, as chemists are allowed by the Ministry of Health under the National Health Insurance scheme to charge certain deposits on medicine bottles varying from 3d. to 1s., according to size. This increase, therefore, maly have the effect of retarding progress with respect to public health, more especially in the poorer districts, where the people cannot afford to pay the deposits recessitated by

increased prices.

The "Owens" machine is an American invention, and was first brought to the notice of manufacturers of this country by a cinema demonstration in 1907. It is entirely automatic, and produces a bottle almost without human aid. There are also in use several kinds of British machines, mostly of the semi-automatic type. . . Shortly after the formation of the Association [of Glass Bottle Manufacturers

of Great Britain and Ireland, in 1997] the American owners

of Great Britain and Ireland, in 1997] the American owners offered it the patent rights for the Eastern Hemisphere of the Owens Automatic Machine at a price of 600,000L, but it was found impossible to raise this sum. The patent rights were then offered to a German syndicate, and after protracted negotiations the syndicate were successful in obtaining an option on the patents...... The German syndicate concerned promoted the international company known as the Europaischer Verband der Flaschenfabriken, to acquire the patent rights of this machine, and manufacturers in Great Britain, Austria-Hungary, Sweden, Holland, and Denmark took shares pro rata to their powers of production. The capital of the European company was 600,000L. Approximately 90 per cent, of the members of the original Association decided to become shareholders in the German company, and cided to become shareholders in the German company, and formed a limited company, known as the British Association of Glass Bottle Manufacturers, Ltd., which contributed 200,000%, for the British rights. . . An arrangement was made whereby the Continental companies should not sell in this country at prices under those fixed by the Association of Glass Bottle Manufacturers of Great Britain and Ireland, which latter organisation was responsible for the fixing of prices in this country. Similarly, the British manufacturers agreed not to under-sell Continental companies in their countries... A further arrangement was arrived at with the Europaischer Verband der Flaschenfabriken that the output for the Owens machine should be strictly limited at first and gradually increased.
In 1912 an attempt was made to strengthen the operations

In 1912 an attempt was made to strengthen the operations of both [these British Associations] by amalgamating the whole of the interested companies in this country. From the promoters' point of view this attempt was not entirely successful, but the outcome of it was that the following firms amalgamated their businesses and became one concern, known as the United Glass Bottle Manufacturers, Ltd.: Cannington, Shaw & Co., Ltd., Sherdley, St. Helens; Nuttall & Co. (St. Helens), Ltd., Ravenhead, St. Helens; Robert Candlish & Son, Ltd., Seaham, co. Durham; Alfred Alexander & Co., Ltd., Hunslet, Leeds; E. Breffit & Co., Ltd., Castleford, Yorks; Moore & Nettlefold & Co., Ltd. (now trading as the United Glass Bottle Manufacturers (Charlton, Ltd., Charlton, S.E. 7)).

. . . Early in 1919 an entirely new company, known as the British Glass Industries, Ltd., was formed. The original capital of this company was 300,000%. consisting of 300,000 shares of 1% each, issued in April of that year at par. Soon after they had formed the nucleus of their business they

after they had formed the nucleus of their business they after they had formed the nucleus of their business they proceeded to absorb other companies, and for this purpose issued a further 300,000 1l. shares at 2l. 10s. each, representing 300,000l. capital and 450,000l. premiums, or a total of 1,950,000l. This company had no interest in the British Association of Glass Bottle Manufacturers, Ltd., which, as we have explained, owned the Owens patent rights in the United Kingdom, but they acquired and amalgamated certain forms of allow more processors, including Thomas Wolb United Kingdom, but they acquired and amalgamated certain firms of glass manufacturers, including Thomas Webb & Sons. Ltd., Stourbridge; Corbett & Co., Ltd., Tutbury, Staffordshire; R. Johnston & Co., Ltd., London; the Medway Glass Works, Ltd., Queenborough, Kent; Duroglass Ltd., Walthamstow, and obtained a very small shareholding interest in Samuel Pearson & Co., Ltd., of West Bromwich, which was, we are informed, the only one of the firms thus amalgamated or associated having any considerable bottle manufacturing business. We have not been able to learn that the original promoters of the British Glass Industries, Ltd., had any knowledge of the manufacture of glass, or the extent of production, of British makers already in the field, or of the complexities surrounding the ownership of the Owens patent. . . Ultimately the British Glass Industries, Ltd., acquired the whole of the 1l, ordinary shares of the United Glass Bottle Manufacturers, Ltd., at 3l. 10s. per Ltd., acquired the whole of the 1l, ordinary shares of the United Glass Bottle Manufacturers, Ltd., at 3l, 10s. per share. The British Glass Industries, Ltd., shares had stood at 4l, 10s., and sold easily at 3l, 10s. In order to buy the ordinary shares of the United Glass Bottle Manufacturers, Ltd., the British Glass Industries made another issue of 800,000 1l, shares at 3l, 10s. each, which raised their capital to 1,400,000l, and their premiums to 2,450,000l. Subsequently the company capitalised these premiums to the extent

quent'y the company capitalised these premiums to the extent of 2.100,000% by presenting their shareholders with three shares for every two they possessed, thereby bringing the total capital up to 3,500,000% out of 5,000,000% authorised.

It cannot be doubted that from the point of view of securing a large output of glass bottles at a low cost this arrangement is a very promising one, but it appears to the sub-committee that it has gravely reduced any chance of these bottles reaching the consumer at a reasonable price.

... We were informed that it is not the intention of the British Glass Industries, Ltd., or the United Glass Bottle Manufacturers, Ltd., to force up selling prices by reason of their organisation.

... We are not satisfied that this very desirable policy will survive the urgent necessity of

earning dividends on this heavy capital, or will withstand the temptations which its interlinked organisation and its influence on the control of the "Owens" machine offer to

its directors.

In 1916 the manufacturers who had embarked upon the production of scientific glassware formed a new Association, known as the British Chemical Ware Manufacturers' Association. The principal manufacturers in this Association are Messrs. Wood Bros. Glass Co., Ltd., Barnsley; Messrs. John Moncrieff, Ltd., Perth; and Duroglass, Ltd., Waltham-John Moncrieff, Ltd., Perth; and Duroglass, Ltd., Walthamstow. . . . Manufacturers have gone so far as to say that unless some safeguard is granted to them they will be compelled to close down their works and cut their losses. We have ascertained that what is desired is a prohibition of imports of scientific glassware except under licence, and although it is not part of our business to report on this aspect of the trade; we cannot refrain from expressing the hope that His Majesty's Government will not find it impossible to implement the verbal assurances said to have been given to manufacturers, for it would appear to be only in that way that this country can be saved from reonly in that way that this country can be saved from returning to the pre-war position of dependence upon foreign countries for their supplies.

Our conclusions may be summarised as follows:

(1) There are in the trade several associations, of which the most important is the Association of Glass Bottle Manufacturers of Great Britain and Ireland.

(2) The prices fixed from time to time by this Association are minimum selling prices, and are the same for bottles produced by the "Owens" machine as for those produced by hand. In actual practice we find that these minimum prices are not ruling prices, for manufacturers' charges are invariably above these fixed prices.

(3) The British Glass Industries, Ltd., is a powerful combination, and is in a position to exercise considerable influence in the trade with regard to prices. We are not satisfied that its financial history is consistent with a reduction in prices, and we are of the opinion that, having regard to the profes, and we are of the common that, naving legard to the profits that have been made in recent years, the prices of bottles are unduly high, and that, in view of the greatly reduced cost of production likely to be brought about by the extended use of the "Owens" automatic machine, very substantial reduction in prices ought to be enjoyed by buyers in the near future.

(4) The manufacturers of scientific glassware have incurred considerable losses since they undertook to manufacture this class of glassware, and although we are not able to report as to fairness or unfairness of past and present prices, we consider that such temporary support should be afforded to this new industry as is consistent with fairness to

consumers. . .

The Re-annealing of Glass.

By W. A. Whatmough, B.Sc., Ph.C.

Abstract of a Paper read before the Society of Glass Technology in London on December 15.

THE paper gave the result of three years' experience of re-annealing small glass articles (chiefly chemical glass-ware) on a commercial scale in a coal-gas fired lehr of peculiar construction. Annealing or slow cooling of glass is the common practice of the glass-house to prevent development of strain through rapid cooling. Re-heating of glass to its softening-point is characteristic of reannealing, and calls for an exactitude of temperature and regulation of the rate of heating and cooling not obtainable in ordinary lehr practice. Strain in glass is not an inevitable cause of fracture; the real trouble is that strained glass is capricious as regards fracture, especially when stressed unevenly. Boro-silicate glass is difficult to anneal, but lead glass anneals easily, and hence is preferred by workers. Stressed glass is the greatest cause of loss in the manufacture of glassware. During the war the author's firm (John Tye & Son) were required to make for a Government department a certain glass article perfectly free from strain, and although the authorities turned down the offer to put up a lehr free of cost, it was erected and was in full use six months later. When active warfare ceased, the powers-that-be decided that this method was the only way of ensuring perfectly annealed glassware. The tunnel-form lehr, designed and patented by the author and Mr. George Keith, is arranged in the form of

an inverted syphon, so as to exclude entirely draughts or movement of air inside. The tray track consists of two shaped lengths of angle iron, 25 ft. long, joined with cross-bars. The top and sides of the tunnel are of sheet steel. with walls of brick, fire-clay slabs, and slag wool. The lehr is fitted with pyrometers. The heat is given by four highpressure gas burners on the Bunsen injector principle. The author showed a series of photographs of the various parts of the lehr, and explained the reasons for the principles employed in the construction He mentioned as an example of the success which had attended the use of the lehr in re-annealing the glass portions of electric-light meters, upon which the loss in the process of manufacture was formerly 50 per cent., that at the present time no breakage occurs in making.

The author next referred to the advantages which the new type of lehr possesses. A gradual period of initial warming is provided, with a rapid rise after the moisture has been converted into steam. It is found also that perfect annealing is effected at over 80° below softening-point (630° C.). Glass stands a very high temperature without collapsing. It would be expected that the angleiron of the track and sheet metal used in the construction would burn away at such a high temperature, but a slight coating of the metal work with red oxide of iron is the only effect observed after months of use, probably because of the oxygen-free atmosphere. The lehr is kept running at small cost, owing to the method of insulating. The cutical annealing curve of glass, as worked out by English and Turner ("Journal Society of Glass Technology"), was found to be of the utmost value in determining the time of rapid re-annealing, as this curve shows the maximum cooling rate (as temperature falls) without strain reappearing. In practical re-annealing the factors governing annealing should not be interpreted too rigidly, as the thickness and type of the glass must be considered in determining the temperature required to prevent deformation. Annealing can be carried out many degrees below annealing temperature if sufficient time is allowed. Fractional re-annealing is also possible; thus an article passed through the lehr twice is perfectly annealed at a temperature 20° or 30° below that necessary for annealing in a single transit. The characteristics to be determined for perfect and rapid re-annealing of any glass article are the cutical cooling curve of the glass and the highest temperature the article will stand without deformation. The second factor determines the time of heating to remove strain, but in practice it is possible to soften glass sufficiently without deformation for this factor not to affect the clearance time for the lchr. Examples of the clear-ance time required were given: Thin glass (test-tubes, crushable glass capsules, etc.) up to half a millimetre, a quarter of an hour; with walls $\frac{1}{2}$ to 1 mm., half an hour; and for articles with 1 to 2 mm, wall, one hour. The author emphasised the necessity of giving the correct time for annealing if the work is to be successful. Reference was also made to the "blooming" of glass in the process, and the methods of overcoming it.

"THE SCRIPT" for December contains several interesting items of the secret history of the motives and events leading to the foundation of the Retail Pharmacists' Union. Copies can be had at 6d. post free from the Editor, 16 Priory Gardens, Highgate, London, N. 6.

SPANISH MERCURY.-The board of directors of the Almaden mercury mines officially announce that the price per flask weighing 34,507 kilos. of mercury, from December 12, is fixed at 373 pesetas when supplied from the stores at the mines of Almaden, and at 375 pesetas when consigned to the railway. These prices are intended only for Spanish purchasers.

Dealcoholising Beer.—Two patents have been taken out in the United States for a process of dealcoholising beer, by passing it down an open, helical, V-shaped trough slowly through a vacuum chamber, while maintained at a temperature which will evaporate most of the alcohol without impairing the other constituents of the beer.

New Companies and Company News.

P.C. means Private Company and R.O. Registered Office.

JAPLIN'S ANTI-RHEUMATIC SOAP, LTD. (P.C.).—Capital, 100%. Objects: To carry on the business of patent-medicine manufacturers, chemists, druggists, chemical and soap manufacturers, etc. Solicitor: A. P. Paine. 20 Essex Street, Strand, London, W.C. 2.

WILLIAM GREGORY, LTD. (P.C.).—Capital 4,0001. Objects: To adopt an agreement with A. W. Gregory to develop and turn to account the business referred to therein, and to carry on the business of manufacturing and analytical chemists, druggists, drysalters, oil and colour men, etc. The first directors are A. W. Gregory, 50 Croom's Hill, Greenwich, S.E. 10, and F. L. Meadows, 14 Uffington Road, West Norwood, S.E. 27. R.O.: 50 Croom's Hill, Greenwich, London, S.E. 10.

SIR JESSE BOOT PROPERTY AND INVESTMENT CO., LTD. (P.C.).—Capital, 150,000%. Objects: To acquire, deal with, and turn to account stocks, bonds, debentures, shares, scrip, or other securities; to take over any lands and buildings in Nottinghamshire or elsewhere; to carry out the hyperse of huilders and contractors of the state of on the business of builders and contractors, etc. The subscribers (each with one share) are :- Sir Jesse Boot, Bt., St. Heliers, The Park, Nottingham; Lady Florence A. Boot. St. Heliers, The Park, Nottingham; J. W. Briggs, Castle Place, Nottingham, solicitor. Solicitor: J. W. Briggs, Castle Place, Nottingham.

W. H. Calnan & Co., Ltd. (P.C.).—Capital, 5.500/. Objects: To take over the business of manufacturers' agents and general merchants carried on by W. H. Calnan agents and general merchants carried on by W. H. Calnan and G. E. Stanbridge, at 30-32 Ludgate Hill, E.C., as "W. H. Calnan & Co.," and to carry on the business of manufacturers' agents of perfumery, drugs and chemicals, suppliers of requisites for chemists, drapers and men's outfitters, etc. The first directors are: W. H. Calnan, 5 Earl's Terrace, Kensington, W. 8; G. E. Stanbridge, 82 Warwick Road, Ealing, W. 5; and J. Wyatt, 106 Sutherland Avenue, Maida Vale, W. 9. R.O.; 30-32 Ludgate Hill London, F. C. 4. Ludgate Hill, London, E.C. 4.

ILFORD, LTD., recommends a dividend of 8 per cent. on ordinary shares for the year ended October 31, 1920.

CHEMICAL WORKS MADOERY, LTD, BASLE.—The directors have decided to pay a dividend of 10 per cent. for the year 1920.

G. B. Kent & Sons, Ltd.—The usual dividend at the rate of 5½ per cent. per annum upon the cumulative participating preference shares for the six months ended September 30, 1920, has been declared.

PARKE'S DRUG STORES, LTD., announce the payment, on December 31, of a second interim dividend on ordinary shares for the half-year ended September 30 last, at the rate of 10 per cent. per annum, free of income-tax.

LEWIS & BURROWS, LTD.—The twenty-sixth ordinary general meeting was held on December 14 at the Holborn Restaurant, Deputy J. R. Brough, C.C., chairman of the company, presiding. The chairman, in moving the adoption of the report and accounts (C. & D., December 18, p. 52), said that the balance of net profit this year was 14,673l., compared with 13,483l. in the previous year, so that they had made about 1,200l, more this year than in The reserve fund was now brought up to nearly 20,000%. On the assets side there had been a comparatively large addition to the leasehold premises. That was chiefly caused by the acquisition of premises in Brook Street. The laboratory work was growing so, much that it was absolutely necessary to get larger premises. The stock-in-trade was 43,869l., apart from the stationery item, and that compared with about 39,470l. last year. The tendency during the year ended September 30 had been for prices to increase, and naturally that increased the value of the stock. In 1914 they had 27,300l. worth of stock-that was before any appreciation caused by the The keynote of the report was that the year's

trading had been very successful. The net profit available was 15,839/., and the board proposed to transfer 5,000/. to taxation reserve account. That allocation was necessary to cover any excess profits duty that the company might find themselves liable to pay and to provide for the new corporation tax. Then, again, unless the coming year was equally successful they would have to face income-tax on a falling revenue. With regard to the reserve fund, they had been constantly attacked because they kept up on the other side of the balance-sheet certain figures for the value of leases, goodwill, and other things, and were not building up a proper reserve against them. Fortunately, during the last few years the company had been able to set aside a satisfactory amount, but one which he thought was not more than it eught to be. Mr. J K. Matterson seconded the resolution, which was carried nem. con.

Meetings of Creditors.

A MEETING of the creditors in the affairs of Trestrails, pharmacists and caterers, Porthleven, Cornwall, was held in London on December 14, Mr. Denton, representing Maw, Son & Sons, Ltd., the largest creditors, presiding. The statement of affairs showed liabilities amounting to 1,190%. 1s., which included unsecured creditors, 1,135%. 1s., and cash creditor, 55l. Assets, less preferential claims, amounted to 742l. 14s. 10d., leaving a deficiency of 447l. 6s. 2d. The cash creditor, it was stated, is a firm of London money-lenders representing the balance of a loan of 115l. The debtor commenced business in Seploan of 115t. The debtor commenced business in september 1914, taking over the business previously owned by a Mr. W. B. Green, for which he paid 125t., leaving him with 60t. working capital. He rapidly built up a good business. His first year's turnover was 800t., and last year 2,000t., or about 40t. per week. He extended his business last February by opening a tea-room attached to the premises, where the takings averaged £10 per week. In November 1919 he purchased shares, representing a holding of 650, in the South Crofty Mine Co., Ltd., which was a bad speculation. It was to this fact that the debtor attributed his insolvency. Several creditors had reditors for 1381. This company, however, has withdrawn the bailiff for the benefit of the general body of creditors. A deed of assignment was issued on December 7 in favour of Mr. Parkin S. Booth, and it was agreed that this should be confirmed, and a small committee of inspection was appointed.

A meeting of the creditors of Bernard Bottomley described as a druggist, South Street, Keighley, was held recently, when a statement of affairs was presented showing unsecured liabilities amounting to 527l. 10s. 6d., of which 411/. 15s. 6d. was due to the trade, while there were cash creditors for loans totalling 82/. 15s. There was also 33l. due for rent to December 31. The assets amounted to 280l. 12s. 8d., less preferential claims of 22l. 13s. 3d., leaving net assets of 257l. 19s. 5d., or a deficiency of 269l. 11s. 1d. The assets consist of: Cash in hand, 12s. 8d.; stock-in-trade, 300l., estimated to realise 2001.; fixtures, fittings, 501., estimated to realise 401.; household furniture, expected to produce 401. It appeared that the debtor commenced business in 1914, purchasing the business for 180l., of which 150l. was borrowed from his father. In 1917 debtor joined the Army, and his father carried on the business. It was reported that the average takings to June 1920 had amounted to 201. a week, on which debtor estimated the profit to be between 4l. and 5l. per week. Since June the takings have dropped to about 10l. per week. It was proposed to offer the business for sale as a going concern, and after some discussion it was ultimately decided that a deed of assignment should be executed in favour of Mr. Parkin S. Booth, accountant, Liverpool. both, accountant, Everpool. The following are among the creditors: Hirst, Brooke & Hirst, Ltd. (Leeds), 86l.; Ayrton, Saunders & Co., Ltd. (Liverpool), 65l.; Brook, Parker & Co., Ltd. (Bradford), 45l.; Potter & Clarke, Ltd., 32l.; A. & F. Pears, Ltd., 8l.; and Rhuaker Remedies, Ltd. (Halifax), 10l.

Roumanian Pharmacy Changes

Owing to widespread discontent among the young chemists, due to abuses of the Roumanian pharmacy laws, the sanitary authorities are putting forward a number of proposals which will produce great changes in the pharmacy laws of Romania. The main cause of trouble is due to the fact that the right to open a pharmacy in Roumania, according to the present law, is obtained only by competitive examination. The sanitary councilsmostly composed of established pharmacists, looking after their personal interests only-hold these competitive examinations at very great intervals, from six to eight years. Moreover, according to Mr. A. Iteanu, the President of the Roumanian Pharmaceutical Society, the examining bodies are far from impartial. In this way most non-established pharmacists, tired of waiting for the competitive examinations, buy or hire pharmacies. The prices of existing pharmacies have soared very high. in spite of prices fixed by Government tariff, so that, owing to the large capital necessary, the yield is very small. On this account the dispensing charges had to be increased systematically, to the great dissatisfaction of the public. Another serious cause of trouble was the fact that on account of the long intervals between these examinations there was a great disparity between the candidates, as young chemists just qualified had to present themselves with chemists of about eight years' practical experience, the former better prepared theoretically, and the latter practically, which made it very difficult for the examining bodies to make a just selection. This policy resulted in a great shortage of pharmacies, and consequently an agitation set in for a complete freedom for the opening of pharmacies. In order to prevent this the sanitary authorities are putting forward the following

(1) In future pharmacies should be opened according to the increase of population, and the candidate must have a certain fixed period of practice.

(2) Qualified pharmacists with three years' practice may open pharmacies in villages.

(3) Qualified pharmacists with ten years' practice may

open pharmacies in towns.
(4) The minimum distance between two pharmacies should be at least 200 metres.

(5) The minimum population for each pharmacy should be at least 5,000 inhabitants.

(6) The right to open pharmacies is personal, the wife being entitled to ten years' possession after the death of the owner, and the children until they come of age.

The proposals are to be put before Parliament, and most likely further changes may be expected. The "Farmacia Romana," a pharmaceutical fortnightly review. is submitting to a referendum (in which apprentices, assistants, established and non-proprietor pharmacists are voting) the following questions:

(1) What system of pharmacy do you prefer—personal, licence to keep shop, duration of life, illimited, inheritable, or freedom for every qualified pharmacist to open

(2) To how many thousand inhabitants should a chemist's shop be open?

(3) Should there be any distance between two chemists' shops, and what should that distance be?

(4) On what principle are licences to open shop to be granted—age, examination, etc.?

It is hoped that the result will show which of the two, the Pharmacists' Society (proprietors) or the League of Roumanian Pharmacists (non-proprietor pharmacists), have got the lead of the profession in Roumania. Meanwhile, the League is sending manifesto to all members of Parliament asking for the complete abolition of all privileges the present pharmacy-owners enjoy, and the right to open a pharmacy by any qualified pharmacist. On the other hand, the established pharmacists, through the President of the Roumanian Pharmaceutical Society, are preparing a new scheme, with the idea of trying to save some of their privileges by

claiming that the selling and hiring pharmacies should be limited to the already established pharmacies, while the future pharmacies granted to new pharmacists must not carry the right of sale or hire. In Roumania it is the Home Office that is responsible for the application of pharmacy laws.

Festivities.

London College Dinner and Dance.

THE London College annual reunion and dinner and dance, held on December 15, at the Great Eastern Hotel. E.C. 2, and presided over by Mr. H. Wootton, B.Sc., was like its forerunners, a complete success. Dancing was indulged in till the early hours. About 120 past and present students assembled, all of whom desire the recurrence of such a completely successful evening.

Eno's Recreation Club.

A successful whist-drive and concert, organised by Eno's Recreation Club, was held at Messrs. Eno's "Fruit Salt" Works, New Cross, London, S.E., on December 16. prizes were won by the following: Misses E. Ginger, D. Chant. M. Falcon (booby): Messrs. R. Wood, F. H. Holden, R. Jewner (booby). Refreshments and dancing followed play, the catering arrangements being in the capable hands of Miss Wilson, assisted by Misses Page, Webber, Esalnek, Shuter, Followes, Colebeck, Loft, and Shirley, who were also largely responsible for the effective decoration of the room. The distribution of the prizes was undertaken by the chairman, Mr. J. H. H. Boyd, works' director, who prefaced this office by a short and witty speech, which was received with considerable laughter and applause. The musical side of the programme was capably carried out by the following: Misses Seldon, Blythe, Ginger, Shuter, Webber, Esalnek, and Chant; Messrs, Wood, Rennie, Draper, Cox, Sheldon, Grove, and Smith,

Staff Dinner and Presentation.

By invitation of Mr. C. E. Gardner, J.P. (High Sheriff of Gloucester), and Mrs. Gardner, the employees of William Gardner & Sons (Gloucester), Ltd., manufacturers of machinery, dined at a Gloucester club on December 14. Upwards of a hundred were present, and among the visitors was the Mayor of Gloucester. After dinner Mr. and Mrs. Gardner were presented with a silver rose-bowl suitably inscribed. In acknowledging the gift, Mr. Gardner commented on the long periods of service standing to the credit of several of the staff, some of whom had been with the company for more than thirty years. Three of the thirty-four who answered the country's call during the war won the Military Medal. Mrs. Gardner added her thanks, and a musical programme enhanced the pleasure of the evening.

Ayrton's Staff Social.

On December 17 Ayrton, Saunders & Co., Ltd., held their annual staff social, Mr. David Murray, chairman of ther annual staff social, Mr. David Murray, chairman of the Social and Works' Committee, presiding. A splendid musical programme was rendered by members of the staff; the artists included the Misses B. Williams, Haydock, McDonagh, Slinger, Eva Williams, and J. Corcoran; the humour being provided by Messrs. Thomas and Sutherland. Mr. E. N. Torry enlivened the Thomas and Sutherland. Mr. E. N. Torry enlivened the proceedings with well-chosen stories. The tit-bit of the evening was provided by "Professor Phul-Nana," the Eastern Mystic, and the question is still asked, "Who was he?" During the evening "Good-bye" was said to Mr. Thomas, packed goods manager. The chairman of the company (Mr. W. H. Saunders) paid a tribute to Mr. Thomas's qualities, and on behalf of the directorate presented to him an easy chair; Mr. J. Lumby, works manager, handed to Mr. Thomas from the managerial and travelling staffs a gold watch suitably inscribed, together with a gold brooch for Mrs. Thomas. Miss Annie Newall, of the packed goods department, completed the presentation with a gold chain.

Chemists' Defence Association.

A SPECIAL meeting of the members of the Chemists' Defence Association, Ltd., was held on December 17 at the Holborn Restaurant, London, W.C. There were present: Messrs. J. G. Atkinson, A. J. Barnes, R. Feaver Clarke, W. L. Currie, John Keall, Jonah Milner, S. N. Pickard, and P. F. Rowsell (directors); also Messrs. C. H. Kirby (solicitor), G. A. Mallinson (secretary-elect), R. W. Brooke, J. H. Cuff, A. R. Keith, J. E. Lockyer, M. C. Rock, C. Rundle, and the secretary (Mr. W. Johnston).

Mr. John Keall, who occupied the chair, referred to the radical changes in pharmacy necessitated by the case of Jenkin v. Pharmaceutical Society, and expressed cordial approval of the resolutions arrived at at the conference of Local Associations delegates held on December 8 (C. & D., December 11, p. 66). He dwelt at some length on the motive which had actuated the directors all through these negotiations, namely, the desire to safeguard the interests of members of the Association in the best and widest manner possible. He moved as a resolution that the meeting authorizes the directors to adopt tion that the meeting authorises the directors to adopt the scheme approved by the conference. This was seconded by Mr. Currie and supported by Mr. Rowsell, the latter remarking that it was appropriate for the C.D.A., which is now about twenty-one years old, that it should join forces with just such a commercial body as the Retail Pharmacists' Union would be. He thought a trade union for employer-pharmacists a desideratum at the present time, as it would assist in the stabilisation of wages, etc. Also, he was strongly in favour of the unification of subscriptions outlined in the scheme. There being no comment from members, the resolution was put to the meeting and carried nem. con.

The following alterations in the rules of the C.D.A., necessitated by the new arrangements, were then submitted

to the meeting:

to the meeting:

2. The liability of the Association to its members in respect of any one error shall not exceed £200 where the subscription paid is 15s. per shop per year, or £500 where the subscription paid is 27s. per shop per year, irrespective of the number of persons injured or amount of claims arising therefrom. The said respective sums, inclusive of damages and claimants' costs for each shop for which the current subscription has been paid, are the full amounts guaranteed under these Rules. The Association shall, however, pay all the oosts and expenses incurred by it, or with its consent, in defending or negotiating with respect to the claim or claims. In cases within paragraphs (b), (g), (h), (i), and (j) of Rule 1, the Association shall not be bound to incur expense exceeding 10t. if the subscription paid is to incur expense exceeding 10l. if the subscription paid is 15s. per shop per year, or exceeding 20l. if the subscription paid is 27s. per shop per year.

12. It shall not be compulsory on the directors to identify 12. It shall not be compulsory on the directors to identify the Association with the defence of any prosecution, but should they think such a course desirable in the interests of the Association they may, in lieu of conducting such defence, hand to the member any sum which they may consider has been, or will be, reasonably expended on such defence, not exceeding 10t, in the case of a member paying 15s, per shop per year or 20t in the case of a member paying 15s. per shop per year, or 20l. in the case of a member paying 27s. per shop per year.

15. Every member shall hold at least one share of 11, in the Association, and shall be a member of the Proprietary Articles Trade Association and of the Retail Pharmacists' Union. Provided that this Rule shall not apply to members carrying on business in Scotland or Ireland so far as compulsory membership of the R.P.U. is concerned unless and until the directors resolve to bring it into operation. and until the directors resolve to bring it into operation.

and until the directors resolve to bring it into operation.

16. Members desiring legal defence under Rule 1 (b) and (j) at a cost not exceeding 10l., and indemnity under paragraphs (c), (d), (e), and (f) of Rule 1 to an amount not exceeding 200l., shall be required to pay the Association an annual subscription of 15s. for each shop to which the benefits of the Association shall apply. Members desiring to be entitled to legal defence under Rule 1 (b) and (j) at a cost not exceeding 20l., and indemnity under paragraphs (c), (d), (e), and (f) of Rule 1 to an amount not exceeding 50l., shall be required to pay the Association an annual subscription of 27s. for each shop. A subscription must be paid to the Proprietary Articles Trade Association and to the Retail Pharmacists' Union for each shop covered in

this Association. Provided that this Rule shall not apply to members carrying on business in Scotland or Ireland so far as compulsory membership of the R.P.U. is concerned, unless and until the directors resolve to bring it into opera-tion. The word "shop" in these Rules shall include a dispensary or any other place of retail business owned by the member or by a company of which the member is a director

18. Mr. J. G. Atkinson, Dr. A. J. Barnes, Messrs, R. Feaver Charke, W. L. Currie, John Keall, J. Milner, S. N. Pickard, and P. F. Rowsell shall, except in the event of their deaths or resignations, continue to be directors until the annual general meeting for the year 1923. All the other directors of the Association shall retire at the general meeting in each year, but shall be eligible for re-election. Any casual vacancy may be fulfilled by the continuing directors.

Mr. Rock proposed that the rules be adopted, and Mr. Brooke seconded.

Mr. Keith expressed the opinion that under the peculiar circumstances, the wording at the end of Rule 18 should be altered. He did not think that vacancies among the directors caused by deaths or resignations should be filled by co-option.

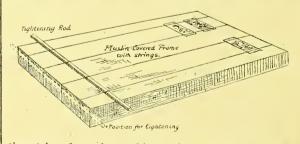
Mr. Kirby explained that the reading was "may be filled" and that that did not commit the directors to co-opting compulsorily. He took it that the directors would not make use of this clause excepting under some very special circumstances which could not be foreseen at the moment.

After further conversation the rules were agreed to nem. con.

A special meeting of the directors of the Chemists' Defence Association, Ltd., was held at the Holborn Restaurant, London, on December 17. Various claims were considered and payment of several sums in satisfaction, varying from 65%. downwards, were authorised. The necessary arrangements were made in connection with the coming changes, among which Mr. Mallinson's appointment as secretary to the C.D.A. from January 3 was confirmed, subject to his release by the Pharmaceutical Society. It was intimated that subscriptions to the Retail Pharmacists' Union should not be sent up until formal notice had been given that the joint officers of the R.P.U. and C.D.A. were ready to deal with them.

A Photographic Print Dryer,

This is a simple apparatus for the quick laying out and drying of photographic prints, saving the time and trouble of pinning out or hanging up by clips. The apparatus consists of a simple wooden frame, covered with muslin and having strings round it at intervals, with a long wooden piece to act as a tightener. In use the strings are adjusted to the width of the print required, the wooden tightener placed under them at one end; the prints are



then taken from the washing tank and just laid on the muslin with the ends over the strings. When all are laid on, the strings are lightly lifted over the ends of prints, on, the strings are nightly inted over the ends of primes, and the wooden tightener gently pressed over the end of the frame, when the strings are pulled into position and the prints held tightly and flat for drying. On a manufacturing scale the frame could be made of metal if required, and the tightening-rod could be substituted by a hinged metal piece to spring into position.—C. H. (19/9)

Pharmaceutical Society of Ireland.

Council-meeting.

The monthly meeting of the Council of the Pharmaceutical Society of Ireland was held at 67 Lower Mount Street, Dublin, on December 14, Mr. J. E. Connor, J.P. (President), in the chair. The following members of the Council were also present: Dr. A. J. Barnes (Vice-President), Messrs. G. D. Beggs, J.P. (hon. treasurer), W. F. Wells, James Michie, John Smith, A. Owen Wells, D. M. Watson, G. A. McLean Lee. Victor E. Hanna and Ered Storey. Hanna, and Fred. Storey.

CORRESPONDENCE.

The Registrar (Mr. A. T. Ferrall) read a telegram from Mr. J. J. Carroll Culbert, who regretted that he could not attend the meeting of the Council, and a letter from Dr. J. A. Walsh thanking the Council for their sympathy on the death of his mother. The registrar submitted a letter from the clerk of the Council, Dublin Castle, transmitting copies of orders approving of the regulations made at the September Council meeting (C. & D., September 25, p. 7z) relating to the fees payable in connection with the Preliminary, Pharmaceutical Licence, and Registered Druggist Examinations, and of the appointment of Mr. J. T. Dwyer, M.P.S.I., as Examiner to conduct the examination for the qualification of assistants to pharmaceutical chemists.

VISITOR'S REPORT.

The Registrar submitted a letter from the Under-Secretary, Dublin Castle, transmitting a copy of the report of Sir John W. Moore, M.D., F.R.C.P., D.L., as visitor of the Pharmaceutical Society of Ireland for the year 1920.

Dr. BARNES said he had read the report through. was very much like its predecessors, replete with the usual statistics. But there were just two points to which he should like to refer very briefly. Sir John Moore said in the opening paragraph referring to the Preliminary examination:

No fewer than 172 candidates presented themselves, forty in January, fifty in April, fifty-two in July, and thrity in October. Accommodation for the exceptionally large numbers in April and July was strained to the uttermost in the two rooms of the Society used as examination-halls.

On that point he (Dr. Barnes) might say that in conjunction with the registrar he had made arrangements to have a dozen or so desks placed in the chemical laboratory upstairs, so that there were really three rooms used in the examination. He also engaged the services of a third superintendent. It looked really as if Sir John Moore had not gone upstairs at all. The examination was well conducted, and there was no undue congestion. The second point to which he should like to refer was what Sir John Moore had over and over again contended—and he (Dr. Barnes) agreed with him—that the minimum pass marks in algebra and geometry was 20 per cent., "so that a mere smattering of knowledge in those subjects is accepted. In many past reports I have commented unfavourably on this low requirement." He (Dr. Barnes) thought it was very easy to imagine some of these candidates saying to themselves: "Well, we need not bother very much about algebra and we need not bother very much about algebra and geometry; we have only to get 20 per cent., and we need not do it thoroughly." That undoubtedly was bad; and he thought the time had come when they should consider the question of raising the standard. He supposed a notice of motion would have to be given of a proposal to that effect. The remainder of the report was much the same as in former years.

Mr. A. Owen Wells: Is not 20 per cent. enough in

this subject?

Mr. Michie said the point had been before the Council previously, and he thought it was the intention of the Council to raise the standard of marking.

The PRESIDENT: The matter will again come before

us after it has been discussed at the Law Committee.

The report was referred to the Law Committee.

APPOINTMENT OF AN EXAMINER.

On the motion of Mr. Storey, seconded by Mr. Smith, Mr. F. E. Preston, M.P.S.I., of 70 Rathmines Road, co. Dublin, was appointed an Examiner for the Registered Druggist Examination in place of Mr. George Brown, M.P.S.I., whose full term of office has expired.

PRELIMINARY REGISTRATION.

The following submitted certificates from other bodies.

and were admitted to Preliminary registration:

and were admitted to Preliminary registration:

Mr. John Desmond Whelan, Medical Hall, Galway;
Mr. Wm. O'Donoghue, Medical Hall, Cahireween, co.
Kerry; Mr. Owen O'Neill, Medical Hall, 30 Parnell Street,
Clonmel; Mr. J. J. Mullan, 30 High Street, Omagh; Mr.
Joseph P. Devlin, 5 Pottinger Street, Woodstock Road,
Belfast; Mr. G. F. Crilley, Holohan's Medical Hall, Stradbally; Mr. T. G. Carney, Achonry, Ballymote, co. Sligo;
Miss Maude J. McFarland, The Castle, Newtowncunningham, co. Donegal; Miss Elizabeth Mary Treston, Gort,
co. Galway: Mr. D. Young, of 23 Wesley Road, Rathgar,
Dublin; and Mr. J. A. Maybin, 4 Dromard Terrace, Sandymount, Dublin.

OTHER MATTERS.

Reports were received for the Law Committee and the House Committee and were adopted.

The death of Mr. Robert John Savage, M.P.S.I., was reported.

The Pharmaceutical Licences of the following were ordered to be sealed:

Joseph Patrick Butler, Thos. Joseph Doyle, Wm. Thos. Hinchey, Timothy Kerins, Robert Wm. Knaggs, Harold Clyde McCracken, Sarah McHenry, David Moffatt, Wm. Richardson Morris, Joseph Denis Murphy, Vincent H. Nicholson, Thos. Joseph Smith, Wm. Stack, Herbert Thomas Whitley, and Francis X. Wilson.

ELECTION OF MEMBERS.

The following were elected members:

Mr. T. J. Doyle, Ph.C., Rosedene, Malahide Road, Clontarf, Dublin; Mr. C. J. FitzGerald, Ph.C., Medical Hall, Kilkee, co. Clare; Mr. J. H. Getty, Ph.C., 15 Clifton Park Avenue, Belfast; Mr. E. T. J. Gourley, Ph.C., 48 Landscape Terrace, Belfast; Mr. James Maguire, Ph.C., 76 and 77 Talbot Street, Dublin; Miss J. A. Murphy, Ph.C., Cloughleafin House, Mitchelston, co. Cork; Mr. V. H. Nicholson, Ph.C., Sorrenta Villas, Blackrock Road, Cork; and Mr. James Glendinning, Ph.C., Waterloo Place, Derry.

PROPOSED FELLOWSHIP.

The following notice of motion stood on the agenda in the name of Dr. Barnes:

That the Council consider the advisability of instituting an examination open only to Licentiates of not less than five years' standing, carrying with it a diploma entitling the holder to be admitted a Fellow of the Pharmaceutical Society of Ireland.

Dr. Barnes said that as there was a comparatively small attendance of members of the Council, and as it was so late, he had, with the permission of the Council, better postpone the motion till the January meeting.

Mr. W. F. Wells asked under what clause in their Act of Parliament was there power to do as Dr. Barnes proposed.

Dr. BARNES: I think if I get a hearing on the matter I will be able to satisfy Mr. Wells on that point.

The motion was adjourned until the January meeting.

Mr. Wells said he had the opinion of a good legal authority who said that Dr. Barnes had no legal power to bring forward such a resolution.

MR. WELLS'S TRIP TO SOUTH AFRICA.

Dr. Barnes said Mr. W. F. Wells intended to take a trip to South Africa to see his daughter who lives there. He was sure they all wished Mr. Wells a very pleasant journey and a safe return, and that he would derive much benefit and enjoyment from his trip.

The President said he was sure the Council endorsed what the Vice-President had said, and that they wished

Mr. Wells a safe journey and a speedy return.

Mr. Wells expressed his thanks for the good wishes of his colleagues.

Correcting the Irish Register.

The Registrar sends us the following particulars of his efforts to bring the Irish registers up to date. If any of our readers can supply information regarding any of the persons mentioned, we shall be glad if they will corre-spond with Mr. Arthur T. Ferrall, Registrar, 67 Lower Mount Street, Dublin:

PHARMACEUTICAL CHEMISTS.

No replies have been received from the under-mentioned pharmaceutical chemists to two registered letters, the second having been posted on August 24, 1920:

Barnes, Edmund, 5 St. Lawrence Road, Clontarf, Dublin. Burns, Henry, 12 Hardcastle Street, Belfast. Byrne, Edward, The Medical Hall, Mullingar, Campbell, James Cowie, 64 University Street, Belfast. Cleavy, Wm., Mallow, co. Cork. Donovan, Solomon, Medical Hall, Main Street, Ballyclare,

co. Antrim. English, Richard Plunkett, 27 Earl Street, Mullingar. Hinds, Edwin Wesley, 42 Harrington Street, Dubliu. Jackson, Frederick Josiah Fletcher, The Terenure Phar-

Jackson, Frederick Josiah Fletcher, The Terenure Pharmacy, Terenure, co. Dublin.
Longmore, Louis Wm., Dromore Pharmacy, Market Square, Dromore, co. Down.
Loton, Alfred Charles, 33 Parkgate Street, Dublin.
Macauley, Henry, 169 Donegall Road, Belfast.
McCann, Charles, Baltinglass, co. Wicklow.
McConnell, Andrew, 112 Lower Dorset Street, Dublin.
Mackessy, Edward, The Central Pharmacy, Kanturk, co. Cork.

McNeill, Robt, John, 36 My Lady's Road, Belfast Mekel, John Robert, 17 Upper Merrion Street, Dublin. Moore, John Thomas, 3 St. Kevin's Terrace, Dodder Road, Upper Rathmines, co. Dublin. O'Brien, James Joseph, The Medical Hall, Ballybaunis,

co. Mayo. O'Conor, Thomas Hunt, 22 Main Street, Blackrock, co.

O'Sullivan, Thomas, 7 Lombard Street, Waterford. Pelissier, Albert Alexander, 54^B Lower Dorset Street, Dublin.

Pepper, Alfred Edward, Railway House, Nenagh, Robinson, James, 3 Windsor Park, Belfast.
Scott, John Simpson, The Holywood Medical Hall,
50 High Street, Holywood, co. Down.

Smyth, James Michael, 3 Cowper Road, Rathmines, co.

Tate, Thomas Dawson, Medical Hall, Castleisland, co. Kerry. Thompson, Alfred James, 69 Kansas Avenue, Belfast.

Walsh, Michael Joseph, Dunmanway, co. Cork. Warren, Frederick Wm., Ludlow Street, Navan. Waugh, George Henry, 132 Grosvenor Road, Belfast. Wilson, George Heatley, 92 Main Street, Bray, co. Wick

CHEMISTS AND DRUGGISTS.

No replies have been received from the under-mentioned chemists and druggists, the second registered letter having been posted on August 26, 1920:

Cairns, John, Eastwood, Maryville Park, Balmoral, Belfast.

Graham, Benjamin, 9 Victor Street, Belfast.

Laven, John, Elphin. Stewart, James, 9 Sandymount Street, Stranmillis, Bel-

Registered Druggists.

No replies have been received from the under-mentioned registered druggists to two registered letters, the second having been posted on August 26, 1920:

Bell, John, 14 Willowbank Street, Belfast.

Boyd, Wm. James, 217 Lorne Terrace, Albertbridge Road, Belfast. Burnside, James, 218 Newtownards Road, Belfast. Cairns, Lizzie, Eastwood, Maryville Park, Balmoral, Bel-

Samuel James, Eastwood, Maryville Park, Bal-

Cairns, Samuel James, Eastwood, Maryville Fark, Balmoral, Belfast.
Clarke, Wm., 12 Corporation Street, Belfast.
Dancklefsen, George, 151 Newtownards Road, Belfast,
Devin, John Thomas, 19 Great Charles Street, Dublin,
Doyle, Richard, 2 Verdon Place, Cork,
Doyle, Wm., Fry Place, Athlone,
Dunlop, Herbert Samuel, 6 Martinez Avenue, Bloomfield,

Belfast.

Fulton, John, 57 Fitzwilliam Street, Belfast. Gillespie, Emmanuel, 117 North Main Street, Youghal. Gilmore, Francis, The Medical Hall, Ferryquay Street, Londonderry

Goudy, John, 4 Crimea Street, Belfast.
Gray, Robert, 35 Hartington Street, Belfast.
Griffiths, Ernest Albert, 108 Patrick Street, Cork.
Grills, James H., Fermanagh Street, Clones.
Hanna, Samuel, c/o Dr. J. M. Moore, 52 High Street,

Lurgan.

Hobson, Richard, 6 Marlborough Park Terrace, Lisburn Road, Belfast.

Jones, Samuel, The Medical Hall, Post Office Buildings. Cavan.

Kirkwood, Thomas A., 9 Royal Avenue, Belfast. Arriwood, Thomas A., 9 Royal Avenue, Belfast.
Lunny, John, 53 Mountjoy Square, West, Dublin,
McCann, James Francis, Killeshandra.
McConnell, Wm., Bushmills, co. Antrim.
McConway, Samuel Robert, 24 Melrose Terrace, Belfast.
McCrea, John, 9 The Mall, Newry.
Mannin, Francis, 7 St. John's Terrace, South Circular

Mannin, Fra Road, Dublin.

Oad, Dublin.
Meredith, John, 48 Patrick Street, Cork.
Oakman, Charles Yates, 17 High Street, Portadown.
Richardson, Joseph, 17 Cromao Street, Belfast.
Scully, Catherine Mary, 3 Seabank Terrace, Dollymount, Dublin.

Selkirk, Wm., 758 Pollokshaws Road, Glasgow. Soden, Thomas Traynor, Ballymahon, co. Longford. Storey, Wm. James, c/o Mr. R. Smith, 350 Newtownards

Road, Belfast.
Sweeney, John Birchall, 4 Market Street, Lurgan,
Walker, Thomas H. F., 42 Sandford Road, Dublin.
Whiteside, Joseph G., 10 St. Vincent Street, Berkeley

Road, Dublin.
Wilkinson, Thomas G., 4 Canada Street, Belfast.
Woods, Edward H., 1 Brighton Terrace, Rathgar, co. Dublin.

Personalities.

Mr. A. E. Richmond, chemist and druggist, Great Yarmouth, has been appointed a governor of Stanninghall farm colony and sanatorium.

ALDERMAN W. ADAMS and W. G. Cross, pharmaceutical chemists, Shrewsbury, have been appointed trustees of the Thomas Bowdler educational foundation.

Mr. A. B. Martin, chemist and druggist, Loughborough, has been re-elected President of the local chamber of trade. Mr. Martin is also the first President of the Loughborough Civic Association.

BRO. JOHN EVANS, chemist and druggist, Cambridge, J.W., Scientific Lodge, No. 88, was invested as P.G. Steward at a meeting of the Cambridgeshire Provincial Grand Lodge at Newmarket on December 15.

THE following pharmacists, members of the Wolverhampton Town Council, have been appointed to the offices named: Councillor Beadmore, chairman of the art and free library committee; Councillor Coleman, chairman of the technical committee; and Councillor Willcock, chairman of the parks and baths committee.

Mr. A. Seneschall (Brand & Co., Ltd.), chairman of the board of management of the Commercial Travellers' Benevolent Institution, was, on December 18, at the halfyearly court of the Governors, presented with a piece of plate for his services in collecting 14,000l. for the Benevolent Fund. (See G. & D. I., 1920, p. 409.)

AT a meeting of the Provincial Grand Lodge of Bedfordshire, held recently, W. Bro. George Turner, chemist and druggist, Biggleswade, P.M. and secretary of St. Andrew's Lodge, No. 803, and M.E.Z. of the Stuart Chapter, No. 540, was invested as Provincial G. Junior Warden. At the same meeting W. Bro. D. M. Spong, chemist and druggist, Biggleswade, P.M. of St. Andrew's Lodge, was invested as Provincial G. Sword Bearer, and W. Bro. A. L. Wyatt, chemist and druggist, Bedford, P.M. of the Sir Wm. Harpur Lodge, No. 2,343, as Provincial G. Pursuivant.

Birth.

JOHNSTON.—At 24 Nairn Street, Yorkhill, Glasgow, on December 19, the wife of George Johnston, chemist and druggist, of a daughter.

Marriage.

Golden Wedding.

Hardman—Chevalier.—At the Methodist New Connexion Chapel, Woodhouse Lane, Leeds, on December 14, 1870, by the Rev. W. Dunkerley, James William Hardman, chemist and druggist, to Suey Elizabeth, only child of Mr. Thomas Chevalier, Melbourne, Australia. Present address: Gargrave, Leeds.

Deaths.

ABERNETHY.—At Lismoyne, Knock, on December 19, Jane, fourth daughter of the late Mr. C. B. Abernethy, R.D., and sister of Mr. Charles Abernethy, R.D., Albert Bridge Road, Belfast.

Allen.—In London, on December 18, after an operation, Mr. Charles Allen, London representative of T. F. Bristow & Co., Ltd., manufacturing perfumers, St. James's Walk, Clerkenwell, E.C. 1. Prior to entering the service of Messrs. Bristow some years ago, Mr. Allen was with Sharp Bros., Barclay & Sons, Ltd., and F. S. Cleaver & Sons, Ltd. His sudden death will come as a shock to his many friends in the trade, by whom he was highly esteemed.

ALLMAN.—At 39 Culmington Road, London, W. 13, on December 21, Margaret, wife of Mr. J. Dowling Allman,

chemist and druggist.

Johnson.—At Durban, Natal, on November 16, Mr. Rupert S. Johnson, who carried on business as a chemist and druggist at 239 Commercial Road, Maritzburg. Mr. Johnson, who was about forty years of age, was well known and very popular among Natal pharmacists. He was for seventeen years with Turner & Co., but for the past two years was in business on his own account. He leaves a widow.

POTTAGE.—At News Ferry, Virginia, U.S.A., on November 25, suddenly, Mr. Robert Gibson Dick Pottage, son of the late Mr. John Cooper Pottage, chemist and druggist, Edinburgh.

Shepperson.—At his residence, Deerswood Cottage, Ifield, on December 14, Mr. William Shepperson, F.C.S., aged fifty-seven. Mr. Shepperson was the representative of Burroughs Wellcome & Co. in Australia for some years, and on his return to England in 1889 was presented by his Colonial friends with an illuminated address. In the following year he joined the Liquor Carnis Co., Ltd., as managing director. On the formation of Keeps, Ltd., in 1902 to acquire Mr. Shepperson's "Diamond Brand" preservatives, he became chairman and managing director of the company, which post he retained until last year. He was the inventor of Virol and of Vitamogen, and was elected a Fellow of the Chemical Society in 1901.

WITHERS.—At West Bromwich, on December 18, suddenly, Mr. Isaac Marsh Withers (Bullers & Co., Ltd., chemists, 262 High Street), aged sixty-six. Mr. Withers was one of the best known men of business in his town and district, and his genial presence will be much missed. He was President-elect of the West Bromwich Pharmaceutical Association (of which he had previously been President in 1915), and was also a prominent Freemason and an active promoter of the local tradesmen's association. Death occurred while on his return from a walk. Mr. Withers is survived by a widow and two sons, the elder of whom, Mr. Eric Withers, chemist and druggist, succeeds him in the business.

Trade Notes.

Diary Notes.—The address of the London Rubber Co., whose name appears under "Rubber Goods" on p. 183 of the C. & D. Diary, 1921, is 183 Aldersgate Street, London, E.C. 1. Their telegraphic address is "Orubelarco" Phone London; and telephone number "City 8246." These particulars, together with the usual advertisement of the firm, were inadvertently omitted.

Proprietary Articles List.—The American Drug Supply Co., Ltd., 6 Northumberland Avenue, London, W.C. 2, have just issued a new edition of their wholesale price list of English and American proprietary articles. The list is well produced, and in it are enumerated hundreds of proprietary medicines and toilet articles. Those that are stamped are indicated by asterisks.

YORKSHIRE RELISH.—New terms and prices for Yorkshire Relish, the well-known product of Goodall, Backhouse & Co., Leeds, come into force on January 1. The minimum selling prices will be $10\frac{1}{2}d$., 1s. 9d., and 3s. 6d. An arrangement has been made by which credit for the amount of the reduction will be allowed on the quantity still in stock on January 1 of consignments invoiced in December.

Reliance Rubber Bottles.—The Reliance Rubber Co., Ltd., 212-213 Upper Thames Street, London, E.C. 4, are sending out a new showcard advertising the Reliance hot-water bottles. The card is 15 in. by 11 in., and contains a reproduction in colour of one of the bottles with a cosy fireside scene to suggest the warmth and comfort that result from the adoption of the hot-water bottle habit. Chemists should find the showcard increase the sales of the Reliance goods.

IODEX COMPETITION RESULT.—Prizes offered to chemists' assistants by Menley & James, Ltd., 64 Hatton Garden, London, E.C. 1, in accordance with the conditions laid down in their advertisement in The Chemist and Druggist Supplement, November 20, p. xviii, have been awarded as follows: (1) Mr. E. Harrison, Wrexham, 5l.; (2) Mr. A. W. Scott, Paisley, 3l.; (3) Mr. D. J. Brolly, Donnybrook, Dublin, 2l. A special merit prize of 1l. 1s. has been awarded to Mr. J. Howorth, Blackpool.

AMERICAN LINIMENT.—The enterprise shown by May, Roberts & Co., Ltd., 7, 9, 11 and 13 Clerkenwell Road, London, E.C., in the sale of American Liniment has led them to import this form of liniment direct from the United States, so that there can be no question as to its origin. The package bears a reproduction in colours of the flag of the United States, and gives the composition of the liniment. The many uses of the liniment are set forth in the handbill of directions. It sells at 1s. 3d. and 2s.

ELCO WINTER GOODS.—The new series of Elco preparations which were recently introduced by Evans Sons Lescher & Webb, Ltd., Liverpool, and 60 Bartholomew Close, London, E.C. I, has been expanded by the addition of special winter lines. There is, for example, an asthma fumigant, with the appropriate name Antasma, which retails at 2s. 3d., and is packed in original shaped tins. Compressed bronchial lozenges are put up in attractive flat tins at 8s. per dozen (subject), with them being sent a neat showcard with a reproduction in colour of the container. Another bright idea in showcards is that devoted to camphor ice, a perforation in the card being provided into which the camphor-ice package just fits. The camphor ice retails at 9d., and, judging from the odour, contains a good proportion of camphor. The chemist's name and address can be printed on these three lines.

"British Journal Photographic Almanac."—The 1921 edition of this old-established photographic reference-book has been published this week at 2s., or cloth-bound 3s., by Henry Greenwood & Co., Ltd., 24 Wellington Street, Strand, London, W.C. It is interesting to observe that, despite the difficulties of production, the

'Almanac' has returned to its pre-war condition. The advertisements are of great interest to all who practise photography, and to photographic chemists. these announcements take the form of artistically printed insets, and form a record of the standard of excellence reached by the particular house whose goods are enumerated therein. The literary contents are exceptionally good. The editor writes on "More Photography," really an up-to-date guide to present-day practice, and following this is an "epitome of progress," occupying about 100 pages, which tells of the new features of photographic progress during the year. This is classified in a manner which makes reference easy. formulas for photographic processes will be particularly useful to photographic chemists.

FACTOLAC.—In the C. & D., November 6, p. 78, we referred to the interesting emulsant which J. L. Hopkins & Co., 100 William Street, New York, place on the market, and which is finding many uses among manufacturers of emulsions. On referring to the note we published we find that an error has crept into the typical formula, which we desire to correct. This should read :

Factolac	 	1¼ oz.
Oil		8 oz.
Syrup		a sufficiency.
Flavour		a sufficiency.
Water		to make one pint.

As a matter of fact we found that Factolae does more than the makers claim for it, but in transcribing the formula we understand the amount of oil which a given quantity emulsifies. Messrs. Hopkins inform us that they have had many inquiries for further information about their product, which they are at all times pleased to give.

SEASON'S GREETINGS.—The pleasant relations which have always existed between C. & D. readers and C. & D. advertisers, the latter representing wholesale houses and manufacturers, are well exemplified by the number of advertisers who insert Christmas and New Year greetings in our journal. The following are the business houses whose advertisements of this type appear in this and preceding issues:

Allen & Hanburys, Ltd.
Allen (Stafford) & Sons, Ltd.
Ayrton, Saunders & Co.,
Ltd. Bailey (Robert), & Son, Ltd.
Baiss Bros, & Co., Ltd.
Berton (Arthur), Ltd.
British Dyestuffs Corporation, Ltd.
Browning, Win., Co., Ltd.
Bush, W. J., & Co., Ltd.
Calnan, W. H., & Co.
Clayton Aniline Co., Ltd.
Cook (Edward), & Co., Ltd.
Cox, Arthur H., & Co., Ltd.
Cuxson, Gerrard, & Co.,
Ltd. Bailey (Robert), & Son, Ltd. Ltd.
Davis, Sons & Co. (Derby),
Ltd. Depreter, A. E. Dalmas, A. De St., & Co., Ltd. Eucryl, Ltd. Evans Sons Leseher & Webb, Ltd. Fulford, C. E., Ltd. Glaxo. Graesser-Monsanto Chemical Works, Ltd.
Greeff, R. W., & Co., Ltd.
Guest, Thos., & Co., Ltd.
Harker (C. R.), Stagg &
Morgan, Ltd. Harley, Thos. Harley, Thos.

Harrington Bros., Ltd.

Harrington, Alf., & Sons.

Holliday, G., & Co., Ltd.

Hovenden, R., & Sons, Ltd.

Johnson & Sons (Manufacturing Chemists), Ltd.

Leonards. London Rubber Co. Lorimer-Marshall, Ltd. Maltine Manufacturing Co.. Ltd. Mandall & Co., Ltd.
Maw, S., Son & Sons, Ltd.
May, Roberts & Co., Ltd.
Newbery, Francis, & Sons, Owbridge, W. T., Ltd. Proprietary Articles Trade Association.
Page, Chas., & Co., Ltd.
Paine & Co., Ltd.
Pears, A. & F., Ltd.
Perry & Hope, I td.
Powell, F. W.
Ransom (William). & Son.
Ltd. Ltd. Reuter, R. J. Sanagen Co., Ltd. Sangers. Sangers.
Scurr, C. A.
Smith, T. & H., Ltd.
Stokes, C. A., & Co., Ltd.
Sutley & Silverloek, Ltd.
Swales, Thos.
Taylor, H. A. & D., Ltd.
Thermogene Co., Ltd.
Toogood. William, Ltd.
Tryer, Thomas, & Co., Ltd.
Vernon Powell, Ltd.
Waide, Thomas, & Sons,
Ltd. Ltd. Westminster College.

Wright, Layman & Umney,

Kent, G. B., & Sons, Ltd. Langham Bros., Ltd.

Trade-marks Applied for.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration. See "The Chemist and Druggist Diary" 1920, p. 308.

(From "The Trade-marks Journal," December 15, 1920.

"ACARITE"; for sheep dip (2). By the South Staffordshire Mond Gas (Power and Heating) Co., Station Street, Dudley Port, Tipton, Staffs. 406,818. "HUNGOWCIDE" and "NICOTICIDE"; for chemicals (2). By Hunter & Gow, Ltd., 36-46 Thomas Street, Liverpool.

Hunter & Gow, Ltd., 36-46 Thomas Street, Liverpool. 408,709/743.

"Niphosa"; for fertilisers (2). By J. L. Thomas & Co. Ltd., 163 Fore Street, Exeter. 408,739.

"Carboid"; for all goods (3). By H. Dickinson, 64 Rockingham Road, Kettering, Northamptonshire. 400,823.

"Kwaheri"; for all goods (3). By S. A. Wright, 174 Park Road, Liverpool. 405,602.

"Factaid" and "Factory First Aid Association" on circular device ("Factory First Aid Association"); for medicinal chemicals (3). By M. Smith, 19 Park Hill Road, Harborne, Birmingham. 406,801/802. (Associated.)

eiated.)

"PINO-VALE." ("Pino" disclaimed); for medicinal chemicals (3). By James Woolley, Sons & Co., Ltd., Victoria Bridge, Manchester. 406,804.

"Forago"; for a medicated liquid inhaler (3). By J. W. Oughton, 62 Legsby Avenue, Great Grimsby. 407,005.

"ROYALINE"; for medicinal salines (3). By R. Kego, 18 Stirling Drive, Burnside, Rutherglen, Glasgow. 407,362.

"PEPTAZOL"; for a medicated peptone preparation (3).

"IMMUNIZOLS BRAND"; for vaccines (11). By G. M. Roure, 2384 Gray's Inn Road, London, W.C. 1. 407,459/458.

458.

"ALMONA"; for medicinal chemicals (3) and for perfumery. etc. (48). By E. Jackson & Co., Ltd., 28 High Street. Crediton, Devonshire. 408,333/334. (Associated.)
"IDORETTA"; for medicinal chemicals (3). By E. D. Newbegin, 53 Gap Road, Wimbledon, S.W. 19. 408,412. ("GREEN LIGHT"; for pills (3). By E. M. Mellor, 32 Market Place, Uttoxeter, Staffs. 408,734. (Associated.)
"DORIE"; for all goods (8). By H. Bennett, Glenwood. Curzon Road, Weybridge, Surrey. 404,954.
"Heatherdew"; for hair tonic and toilet cream (48). By Hugo Wolff, 21 Hart Grove, Ealing Common, W. 5. 408,345.

408,343.
"Texol": for perfumery, etc. (48). By The Ilex Supply Co., Ltd., 252g Gray's Inn Road, London, W.C. 1.

408,455.
COURTIER": for perfumery, etc. (48). By the Standard Tablet Co., Ltd., Goldstone Chemical Works, Hove.

(From "The Trade-marks Journal," December 22, 1920.)

(From That Frate-marks Journal, Determore 22, 1920.)
"Lignosol."; for chemicals (1). By Jeyes' Sanitary Compounds Co., Ltd., 64 Cannon Street, E.C. 4, 408.833.
"Charmar.": for veterinary chemicals (2). By C. Marginson, The Homestead, Royelty Lane, Preston, 408.614.
"PINOFLUOL"; for medicinal chemicals (3). By J. Grünthal, 173 Friedrich-Strasse, Berlin, 362.456.
"Verna-Yean Brand Pills"; for pills (3). By Wilkins & Wilkins, 357 High Road, Wood Green, London, N. 22, 402.514.

Information Department.

INFORMATION WANTED.

Postal or telephone information with respect to makers or first hand suppliers of the undermentioned articles will be appreciated: Castle | C/1812. Moeber's serum D/2012. Dunbarton

INFORMATION SUPPLIED.

Inquiries regarding the following articles have been answered The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THI CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.O. 4

Karmoid tablets, S/1312 Marmite food extract, S/1712 Higgins' indian inks, E/1712

Surgeons' india-rubber gloves,
T/1712
Madame S/1712
S/1712
Marmid tablets, S/1312
Marmite food extract, S/1712
Higgins' indian inks, E/1712
Surgeons' indian street, Education Science, E/2012
Planadalin, M/1612
Germidol mouth wash, R/1512
Hunt's bottle caps, 1/2112
Hunt's Haematogen, G/2012
Enterprise tineture press.

Johnston & Adams.

Observations and Reflections. By Xrayser IL.

The Distribution of Plants

is sometimes so curiously partial as to defy explanation, and a case in point is afforded by *Chrysanthemum segetum*, the subject of two very interesting letters in your last week's issue. Mr. Hazelby says it is common enough in cultivated fields having a sandy soil, but I know plenty of fields answering to this description in which it is never found, and one neighbourhood in which it grows profusely is surrounded by such fields, into which I have never known it spread. I have referred to this subject before, and recur to it now in the hope that somebody with more knowledge will take it up. It would be a capital subject for a paper for a local Association or the British Pharmaceutical Conference. Lyte, by the way, says that C. segetum varies greatly in character, according to the place in which it greatly in character, according to the place in which it grows. It is not peculiar in this respect, or in the other either, but it is the partiality of distribution that puzzles me. It is, I find, Canon Ellacombe who says that C. segetum is more common in Scotland than with us. He adds that it is there called "goulands," but "goulands," for "goulands," is lands" (or "gollands") is a name given to a species of ranuculus and several other flowers as well.

Mr. Woolley's Lecture

on the Medicine Stamp Acts was historically appropriate on the eve of the formation of a new trade defence Union, for it was in resistance to one of these Acts that in 1802 the apothecaries and chemists formed what was, I believe, the first Association of the kind into which we entered, the General Pharmaceutical Association of 1794 having been a very different body, formed by the apothecaries in opposition to the druggists. The first Stamp Act of 1783 was aimed, as Mr. Woolley said, not at us, but at the quacks of the day, such as Van Butchell and Katerfelto, but that of 1802 involved, more or less, many common remedies and articles in daily use. Under pressure from the Association it was considerably modified. A somewhat similar crisis occurred in.1829, when an attempt of the Commissioners of Stamps to interfere with the sale of lozenges and other articles by weight, without a stamp, caused another Association of Chemists and Druggists only to be formed in defence of our rights. Soon afterwards the law was altered or differently construed, and, the evil being at an end, the Association was broken up. It is quite likely that opposition to similar encroachments may be one of the first duties of our new Union.

By a Happy Error

I was made to say last week that one representative of a multiple-shop firm will "cash" all the votes to which it is entitled under the Pharmaceutical Union scheme. What I really wrote was "cast," but "cash" will do very well, for these votes will frequently have a cash value. I am glad to see the manager of a branch shop taking up the case of the class he represents. The remark of mine to which he refers, though not strictly relevant where it occurred, has served my purpose of drawing attention to the position of managers, which will be less enviable than ever when the Union comes into being. Your correspondent anticipates a criticism of my own in what he says of Mr. Neathercoat's proposal to maintain the Society's connection with the Local Associations by helping to finance them. It would manifestly be absurd of employee pharmacists to continue members of the Society if part of their subscriptions are to be used against them (as might very easily happen) in this way. The conviction grows stronger every day that in attempting to engineer the new Union in its own interst, and by methods of "peaceful penetration" to pervade the whole craft, the Society is pursuing a suicidal policy. Such tactics were all very well when the Society was the only organised body representing British pharmacy, but the way of true wisdom now is to stand aloof, beyond suspicion, and let the trade organise and govern itself.

Miss Margaret G. Boag,

lecturing us on our want of business ability and kindred subjects, reminds me of Charles Lamb discussing the breeding of oysters. "Really, Mr. Lamb," said a newly-married young woman who was present, "what can you old bachelors know about such a subject?" One is tempted to ask what a young lady (all ladies are, I believe, by courtesy, young) can tell us that we do not already know about running a chemist's shop. Ideals (with which she began) would seem a more suitable theme, for I am afraid most of us old fogeys have outlived ours and need to be reminded of them; but on these Miss Boag seems to have been a little vague. I really don't catch the distinction between "commercialised pharmacists" and "alleged scientific chemists," unless it depends upon the term "alleged," which, for anything I can see, might with equal appropriateness be affixed to the former class too. I quite agree with what she says of female assistants, and am glad she blames them rather than as for their inferior position; but there is some than us for their inferior position; but there is something to be said on the other side even here. Equal pay for equal work is a good principle, but it doesn't always apply. Women often expect (and get) extra consideration, and this should be taken into account.

Box,

about which one of your correspondents recently inquired, in addition to the uses mentioned last week, was at one time a rival to guaiacum as a remedy for venereal diseases. It was given in decoction. It was also prescribed in cases of epilepsy, and the leaves are said to be sudorific, alterative, and cathartic. A decoction is recommended by some writers as an application to promote the growth of the hair. Was not box the active ingredient in a once-famous remedy for the bite of a mad dog?

Mistletoe and Holly,

says a writer in a daily paper, is being displayed in greengrocers' shops in preparation for Christmas decoration. Mistletoe, however, ought not, properly considered, to be used for decoration. It has a mystical significance; its use at Christmas has a Druidic origin, which is influenced too, no doubt, by the part the plant plays in Scandinavian mythology. It was with a dart made of mistletoe that Loki, the dark earth spirit. killed Balder, the sun-god, whom nothing growing on ground could hurt. The other gods brought Balder back to life, and for his future protection gave the mistletoe into his mother's keeping so long as it should not touch earth. So we hang it from the ceiling and kiss under it in token of amity, and that the sun-god is reassuming his sway over the year. It should never be used otherwise, or be mixed with

Holly and Ivy,

between which there was anciently a great feud. Our Christmas use of holly is a survival of its use in the Roman Saturnalia; why ivy is associated with it I cannot say, but perhaps "ivy-crowned Bacchus" has something to do with it. In that case it should protect us from the effects of the season's convivality, while holly keeps away evil spirits (no pun intended here), and to which mistletoe is never admitted. The proper place for ivy used to be the hall, for holly the inner rooms. but the distinction was not always observed. Holly was the chief favourite, though ivy had its champions. There is an old carol beginning-

Holly bereth beris, beris rede enough;
The thristilcock and popingay daunce in every bough;
Welaway, sory ivy! what fowles hast thou
But the sory howlet, that singeth "How, how"?

Mr. J. H. Rogers, chemist and druggist, has opened a business in High Street, Broughton, Wrexham.

PAPIER POUDRÉ, LTD., inform us that the change of address notified last week (p. 66) is due to a re-numbering of Baker Street. Their number will be 46 in future.

MACANDREWS & FORBES, LTD., proprietors of the Apollo and Mafco brands of stick liquorice, have removed to 65 South Molton Street, London, W. 1.

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Index Folio 1766

Editorial Articles.

The Departing Year.

The year 1920 has proved more momentous for English pharmacy, or at least for the Pharmaceutical Society of Great Britain, than its immediate forerunner. It is, said Lord Beaconsfield, the unexpected that happens, and although we all had the feeling that great events lay before us, we did not look for them from the quarter in which they arose. The agitation over the by-law question of last year left very bitter feelings behind it. Even many of those who were inclined to share the Council's view of the necessity of submission to the demand for the by-law strongly condemned the tactics by which it was made effective, and the New Year opened with the expectation of great if not revolutionary changes in the Council. There was a great beating of drums, and only once before has such a number of candidates mustered

for the fray. "Mustered," indeed, is hardly Тне the word to use here, for it supposes some SOCIETY. kind of leadership and concerted action, and very little of either was seen in this election.

The result, as the wiser heads foresaw, 'was almost nil. The zeal of the would-be reformers of the Council defeated itself. Only two out of sixteen new candidates for office succeeded in securing seats, and of these only one was an out-and-out opponent of the Society's policy. Fortunately they were both good men, but this does not alter the fact that never before in the Society's history has such an opportunity for the liberalisation of the Council been thrown away. Probably we shall never again see such a scramble. The restriction of the Society to purely professional functions will divert our more active spirits into other channels, it may be hoped of greater usefulness. But, comparatively futile in its effect on the election as was the agitation against the by-law, it was not wasted energy. It strengthened the hands of the Society in all future opposition to the demands of outsiders for admission to our ranks, and to it is mainly due the fact, recently stated by Mr. Balfour in the House of Commons, that it would be useless to ask us to consent to any further dilution of the Register. In spite of the large increase of members announced in the spring, the financial outlook of the Pharmaceutical Society has, during the year, been causing a good deal of anxiety, which official protestations that all is well have done little to allay. Mr. Melhuish called attention to the subject at the April meeting of the Council, and subsequently moved for a sinking fund to be established in view of the "lean years" likely to follow the present years of prosperity. The financial question generally, and the administration of the Benevolent Fund in particular, were again discussed at the May meeting, and the question of a sinking fund was referred to a committee. In spite of these clouds on the horizon, the annual meeting was fairly harmonious, though some shrewd thrusts were made at the Council's conduct of affairs, and the secretary had to be called upon to reply to some of the most awkward questions. The financial difficulty cropped up again in October, when a by-law was passed, not without opposition, for the increase of subscriptions from a guinea to a guinea-and-a-half, and the composition for life-membership from ten to twenty-five guineas. This was confirmed at a special general meet-The treasurer, however, did not ing in November. appear to be satisfied, for at the Council meeting held in the same month he made a very serious statement and moved a resolution, which was only withdrawn under pressure from the President, asking for an estimate of

income and expenditure for 1921. It should be added that in June Mr. Currie retired from the presidentship, and was succeeded by Mr. Neathercoat. But the event of the year, so far as the Society is concerned, was the Test Case, the full effects of which cannot vet be foreseen, but will certainly prove revolutionary. This does not mean that ultimately they will be injurious either to the Society or to the trade; indeed, we anticipate the exact contrary. The Society will gain more in prestige and professional status than it will lose in direct power, while the trade will be, or should be, better organised, both for detence THE TEST and for expansion, than it has ever been CASE. hitherto. The events that led up to this epoch-making case are too recent to need more than the briefest recapitulation. It was early in the spring of 1919 that Scottish chemists, dissatisfied with the organisation of the Society, began to move for a separate association of their own for strictly business purposes, and the Scottish Pharmaceutical Federation was formed. There was no hostile intention against the Pharmaceutical Society; only members of the Society were to be admitted to the new body, and it was proposed to link this up with the Local Associations Executive. Trouble, however, almost immediately arose. The Society became alarmed for its position. Sir William Glyn-Jones was sent down hot-foot to recall the innovators to a mind more in accordance with that of the central authority, but the sons of Wallace and Bruce turned a deaf ear to the voice of the charmer, and Scottish legal opinion was cited in opposition to the Society's reaffirmation of its power to deal with business matters. Counsel's opinion on this side of the Border was then taken, and, proving favourable to the Society's pretensions, a test case was prepared, in which Mr. Jenkin appeared as plaintiff against the Society, claiming an injunction to restrain the latter from spending its funds on certain specified objects. The case was opened on October 19, and judgment against the Society was delivered on the 27th of the same month. To say that it was received with satisfaction by the bulk of the trade would be well within the mark. The general feeling was that we had been freed from an incubus which had long oppressed us, and could at length breathe freely. Naturally a good deal of commotion was excited by this judgment. At the special general meeting of November 6, previously referred to, it was introduced with effect in criticism of the by-law just passed, increasing the subscription to the Society, and a feeling that the Council had been guilty of rather sharp practice in getting this through before the curtailing of expenditure certain to follow the restriction of the Society's activities was evident. The President denied that such curtailment would follow, but he refused to go into the question of the general effect of the judgment, and nothing of any moment was said as to the Society's action. Outside, however, suggestions sprang up like mushrooms, the popular feeling apparently being that the new organisation should, in origin as well as in its working, be entirely independent of the Society. It was the conviction that this was so which led THE CHEMIST AND DRUGGIST to put forward the Scottish Federation as a working model upon which to frame our own, and in the following week to issue to its subscribers a questionnaire upon the subject. It was pointed out that this Federation was already functioning, its objects were explained, and the question was asked whether such a Federation would meet our requirements and receive sufficient support to make it practicable. In the meantime the Council had prepared a scheme of its own, which appeared in its official journal on the day on which our circular was issued, and thus the idea of two rival THE Pharmacist schemes, one of which would necessarily invalidate the other, got about, and the C. d. UNION D. was not obscurely charged by interested parties with causing dissension. Wc, however, had purposely abstained from putting forth any definite scheme of our own; the air was already thick with more or less coherent schemes, and our intention was merely to concentrate attention upon the only one that had actually been tried, in the hope that the opinion of the trade would. so to speak, crystallise around that. We had already expressed the opinion that a Conference of the trade should be called to decide the issue, and such a Conference, if left free to its own guidance, we still hold to be the only authoritative judge in such a matter. Whether the Conference of delegates summoned by the Council for December 8 had the necessary qualification we are not concerned to inquire in this historical survey. The Conference, in spite of a threat of an injunction restraining the Society from spending money for illegal purposes, was held on the date named, when the draft scheme already referred to was submitted to it and accepted, with a few amendments of small importance. The same evening the Docal Associations Executive and the directors of the Chemists' Defence Association conferred together and passed resolutions forming a new organisation called the "Retail Pharmacists' Union," and constituted themselves a provisional committee of the new body. The attitude of the Government, both in Parliament and in the various administrative departments with which we have to do, has not during this last year been very sympathetic to our craft. When the year opened the Profiteering Act was in full swing, and the announcement was made that it would remain in force without alteration until April 19. although several Committees had declared it to be a farce, more than one Tribunal had refused to go on, and the Board of Trade had been appealed to repeatedly for instructions how to work it. A deputation from the Chemists' Defence Association and the Proprietary Articles Trade Association waited on Mr. McCurdy in February, chiefly with a view of obtaining the exclusion of dispensing from the scope of the Act; but, though sympathetically received, it failed to extract any undertaking from him, and when the Act was amended in May dispensing was not excluded, the utmost we secured being a promise that more consideration than formerly should be given to the element of skill in compounding The amended Act contained a new clause medicines. protecting proprietors of secret remedies from the necessity of disclosing their formula. In July new regulations of no great importance came into force. The Dangerous Drugs Bill, introduced early in the year, was a serious menace. It ignored altogether the LEGISLAposition of the Pharmaceutical Society (whose TION. Council, however, seemed curiously unaware of the danger until attention was called to it in the C. & D.), and was a blow at the Pharmacy Acts, by which our rights, such as they are, are protected. The Council, once roused to action, bestirred itself; amendments were proposed and accepted, and the Act passed in a form which secured the Government's objects without seriously affecting us. The regulations to be made under the Act have not yet been published, but it is

feared that unless active steps are taken these will be unnecessarily restrictive in the case of preparations and prescriptions containing morphine and diamorphine. With this Bill the Ministry of Health had nothing directly to do, but the Proprietary Medicines Bill, a much more scrious threat to us, was its own child, and a very misshapen bantling it was. Of this measure's ultimate fate it is as yet impossible to speak; thanks to the agitation the C. & D. raised against it, some of its worst features have been considerably amended, much to the chagrin of interested parties. Among other things the monstrous prohibition of the sale of remedies for the "prevention and relief" of various ailments will be dropped, and also the "vital issue" of the expropriation of trade secrets involved in the deposition of formulas. Owing to the awakening of the House of Lords to the extravagances of the Ministry of Health, there seems a possibility that the Bill may be withdrawn from motives of economy. Apart from this Bill we have to thank the Ministry of Health for the administration of the Venereal Disease Act, which has been consistently hostile to us. The Interim Report of the Ministry's Consultative Council, issued in June, did not, as we pointed out at the time, promise so much consideration for the pharmacist's claim to service as he is justly entitled to, and the Ministry made short work of the Society's unaccountable delusion that the terms for Health Insurance dispensing accepted at the beginning of the year were subject to revision in June. It is too soon yet to say whether our application for an increase for next year will be granted, but it is fairly certain that we shall not secure equitable terms without a struggle. The claim put forward by the Local Associations Executive was much too modest, and it is somewhat ominous that talk has been heard about the terms for 1922, as if we were expected to content ourselves for the present with somthing less than we ought to have, and wait nntil then for a permanent satisfactory arrangement. Returning to the subject of new legislation, we can but glance at such measures as the Early Closing Bill; the Veterinary Surgeons Bill; the National Health Insurance Bill increasing the normal rate of sickness benefit; the Unemployment Insurance Act; the Criminal Law Amendment (No. 2) Bill, dealing with advertisements; and the Dentists Bill, requiring chemistdentists to choose between the two professions. These and other measures of less direct importance to pharmacists are all evidences of the necessity of ceaseless vigilance on our part, and should be a stimulus to the speedy formation of a competent protective union of pharmacists. Our review grows lengthy, and we have little space left for items which, though of minor importance, yet press for mention. The drug-workers' strike early in the year was fortunately neither very widespread nor very prolonged, but it was a sign of the times which must not be forgotten, as were MATTERS. also the later wages disputes and the wages standard put forward in July. The tendency has been, and still is, towards higher salaries, both in the wholesale and in the retail branches, and it must be added that the Amalgamated Assistants have shown a little impatience in the matter. There is a feeling that the high tide has been missed through the action of the Local Associations Executive in summarily rejecting overtures for fixing a standard for wages in the drug-trade. The large number of newly qualified chemists requiring to be absorbed has altered the aspect considerably. Whatever

other tradesmen. It is more than doubtful whether it has kept pace with the increased cost of living: we suspect that, in relation to this, net incomes in the retail drug-trade are very little if at all higher than they were before the war, but the salaries sometimes proposed are apparently based on the assumption that they are vastly greater. We are, no doubt, passing into a new era, but, whether for employers or employed, the golden age is not yet. The British Pharmaceutical Conference at Liverpool was an outstanding event of the year. Never has the Conference received a warmer welcome or deserved it better, though it must be confessed that the tendency here, as elsewhere, ssems to be towards less work and more play. The amalgamation of Boots and Rexall, effected in the summer, caused a good deal of excitement and some unnecessary alarm. It is not likely that British pharmacy will be Americanised in any bad sense, and there are doubtless many things we should do well to learn from America. The centenaries this year of Reynolds & Branson, of Southall Brothers & Barclay and of Dakin Brothers are matters for warm congratulation. The obituary of the year includes several names of note, among which are those of Mr. Hermann Woolley. of Manchester, Mr. Sigismund Kutnow, and Mr. Pond, of Fleet Street.

Tenancies of Business Premises.

THE only relief from oppression which is at present afforded to tenants of premises used for solely business purposes is that provided by the Increase of Rent Act, 1920, in cases where either the standard rent or the rateable value does not exceed 105l. in London, 90l. in Scotland, or 781. elsewhere. Even this restricted protection-which was yielded with reluctance by the Government, at the last minute, in deference to strong public feeling-will cease to have effect on June 24 next. When the provisions of the Act were being considered by the House of Commons in the early summer, the Government pledged itself to appoint a Committee to inquire into the question of business premises, and to give legislative effect to its recommendations. The Committee was duly appointed in June last, and has just issued its report, which weighs with great fairness the interests of landlords and tenants respectively. In the first place, the Committee is satisfied that in a substantial number of cases tenants have been compelled to submit to what appears to be an unconscionable increase in rent in order to retain possession of their business premises, and in several other cases have been dispossessed of business promises without being given any option to retain them on fair terms. On the other hand, the Committee freely acknowledges that the majority of landlords do not appear to have acted harshly towards tenants. On the whole, owners of business premises, it is considered, cannot be said to exact an excessive return on the capital invested by them in such property. The operation of the Increase of Rent Act, 1920, the Committee thinks, has not been wholly satisfactory so far as business premises are concerned, and certain defects and anomalies arising out of the Act are referred to which have convinced the Committee that a mere extension or amendment of the Act will not solve the difficulties that have been brought to its notice. Consequently, the Committee does not recommend that the operation of the Act in relation to exclusively business premises should be prolonged. Fortunately, the Committee recognises the necessity of avoiding any provisions which may

improvement also there may have been in the master pharmacist's lot, it has not kept pace with that of most

discourage the investment of capital in the erection and reconstruction of premises. It is pointed out that in the majority of cases the ordinary small trader does not want to invest his capital in land and buildings, but prefers to rent his premises and use his capital in his business. The accommodation, therefore, must be provided by someone else, either the developing owner or the builder, who naturally looks for a reasonable return on his capital and a reasonable security. For this reason, the Committee suggests that any legislation which tends to discourage the bona-fide investor is to be approached with caution. The conclusion come to by the Committee is that the present discontent of tenants is, to some extent, the result of speculators exploiting the abnormal value of property; but is fundamentally attributable to the prevailing excess of demand for accommodation over supply. It was stated in evidence that relatively few business premises were constructed between 1910 and 1914, and an insufficient number have been built since 1914. Consequently, the true remedy for existing grievances, states the report, lies in increasing supply (a) by building new premises on any available sites in business areas; (b) by reconstruction on larger lines, providing increased accommodation; and (c) by developing new sites upon areas adjacent to business districts, but now occupied by decayed or undeveloped semi-residential areas. The report concludes with a number of recommendations, the principal of which is that, failing mutual agreement, a tenant should be permitted to apply to a tribunal for a prolongation of his tenancy for a period terminating not later than June 24, 1923, upon such terms as appear to the tribunal to be just. The tribunal, in considering the application, should take into account all the circumstances of the case, such as any improvements made by the tenant which have substantially increased the permanent value of the reversion, and which have not been made by him in discharge of any contracted liability; any claim by the tenant that the goodwill of his business has added to the letting value of the premises; and the existence of alternative accommodation equally suitable in all respects. It is proposed also that the tribunal should have power, as an alternative method of relief, to award compensation to a tenant who is The tribunal, it is dispossessed of his premises. suggested, might consist either of the County Court Judge, or of one of a panel of arbitrators to be appointed by him. If statutory effect is given to the Committee's recommendations it should prove a reasonable safeguard against tenants of business premises being capriciously evicted or called upon to pay exorbitant rents. It is to be hoped, however, that the Government will deal expeditiously with the matter, particularly having regard to the fact that the provisions of the Increase of Rent Act, 1920, in so far as they affect business premises, will expire in six months' time.

Chemical Glassware.

In the report of the Sub-Committee appointed by the Standing Committee on Trusts to inquire into the existence of trusts in the glassware and glass-bottle trades, referred to on page 72 of this issue, mention is made of the fact that verbal assurances are said to have been given by Government representatives to the manufacturers of British chemical and scientific glassware that the industry would be supported after the war if they helped the country in its time of difficulty. Meanwhile a very critical state of affairs has arisen in this industry, and the question has

been raised in the House of Commons, where it was elicited that a Bill dealing with key industries will be introduced early next session, the details of which are to remain secret for the present. Help will have to come very quickly or it will be too late, as already a number of the smaller factories have closed down. The principal facts concerning the development of the industry in this country are common knowledge, but it may be well to refresh our memories on one or two points, especially as the Government proposals, whatever they may be, are likely to excite controversy. Prior to the war there was practically no manufacture of chemical glass in this country, and it was at the urgent request of the Government that manufacturers were induced to undertake the production in order to assist the prosecution of the war. There were many difficulties to be overcome in the earlier days, but after considerable research and experimental work the makers were able to produce laboratory glassware equal, and in some cases superior, in quality to that from ex-enemy countries. The position now is that the British makers claim a restriction of imports, chiefly on the ground that owing to the greatly depreciated rate of exchange Germany is flooding the market with all kinds of chemical glassware at prices with which it is quite hopeless for British makers to attempt to compete. This has been taking place for several months past, and, as stated, a number of the smaller factories have already closed down, and others are carrying on with difficulty. The German chemical glassware manufacturers have openly stated that they intend to ruin these new British enterprises, so as to make this country again dependent upon Germany. The restriction of imports of chemical glassware. of course, has its opponents, among whom is Professor W. H. Bone, who asserts that the British glassware supplied to him up to the present is still decidedly below the quality of foreign glassware made before the war, and declares that he would not think of using British glass if he could get the German product. He also protests against the handicapping of British scientific workers by import prohibitions or protective tariffs in respect of foreign glassware. Professor Bone seems to overlook the fact that a capital of some ten millions invested in the industry is in jeopardy and the live ihood of several hundreds of workers at stake. Moreover, the chemical glassware industry in this country is by common agreement of vital concern to our national well-being, and on these grounds alone certain temporary disadvantages may have to be horne.

The "Year-book of Pharmacy."

The "Year-book of Pharmacy" for 1920, which has just been issued, contains the official report of the Conference held at Liverpool last July and 347 pages of abstracts from technical journals, together with research suggestions and the customary lists of members and officers. The volume presents a well-selected compendium of investigation (with a modicum of speculation) for occasional reference. The "New Remedies" and "New Applications of Remedies" sections, compiled by Mr. Thomas Stephenson, Ph.C., are headed "To June 30, 1920"—a plan that might with advantage be followed in other parts of the work. The grouping of items under "Dispensing," or "Galenical Pharmacy" appears, in some instances, to be arbitrary; and locutions such as "Dose, same as ichthyol" (p. 183) are not to be commended. Mr. J. O. Braithwaite is again editor of the abstracts and Mr. C. H. Hampshire, B.Sc., of the transactions, both of which divisions of the book exemplify (to borrow a phrase from the former) "the discretion pertaining to practitioners of pharmacy."

The Medicine Stamp Acts.

By S. W. Woolley, Editor of "The Chemist and Druggist."

A Paper read before the North London Pharmaceutical Association, December 14.

THE probability that before long some amendments of the Medicine Stamp Acts will be introduced by the Government has suggested that the time is opportune to review the present state of the law as it relates to stamp duties upon proprietary medicines.

It is best to begin by tracing the origin of the medicine duties, and to state at the outset that the intention was not to tax the sick but to raise revenue from empirical remedies prepared and sold by persons who were not regular practitioners in medicine and pharmacy.

In the eighteenth century there were many proprietary medicines advertised by doctors and others to the public. The "Gentleman's Magazine," August 15, 1748, contains The "Gentleman's Magazine," August 15, 1748, contains a list of over two hundred nostrums which had been advertised in the Press as remedies for various ailments. The author put forward this "Pharmacopæia Empirica" in all seriousness, explaining that when one is seized with an illness it is not always easy to remember where a remedy which has been advertised in the papers can be obtained "notwithstanding the great expense that these public-spirited people are at to advertise their medicine from time to people are at to advertise their medicine from time to time." He defined nostrums as "such medicines as are kept secret for the use of the proprietors, though advertised in the newspapers, etc., for the benefit of the public." The list gave in tabular form the uses of each remedy, name and address of the proprietor, and the price. It includes a few that are still known to pharmacists, such as Turlington's balsam, Stoughton's elixir, Bateman's drops, Godfrey's cordial, Daffy's elixir, Hooper's pills, and James's powder. This article is mentioned because the same conditions probably existed in 1783, when the first Medicine Stamp Act was introduced to produce revenue to pay the interest on loans raised for carrying on war. There was a Treaty of Versailles in that year, but it was between this country and Spain. We had also been at war with the United States and France. Lord John Cavendish, who brought in the estimates on May 26, 1783, explained that it was necessary to impose new taxes to produce 650,000l. in order to pay the interest on a loan of twelve millions just made. Lord John abolished sinecures of the annual value of 72,000l., and instituted the stamp-tax on receipts, and fees for registering births, marriages, and deaths, adding that "quack medicines are very proper objects of taxation," and could be made to yield 15,000l. annually. The resolutions of the House of Commons, which were passed the next day, were to the effect that "all persons (except such persons who have served a regular apprenticeship to a surgeon, apothecary, druggist, or chymist) uttering or vending medicines in Great Britain be obliged to take out a licence annually for that purpose." The Bill was introduced and read a second time on June 24. In Committee on June 26 an interesting incident is recorded in connection with the clause for exempting "druggists, chemists, and graduates in physic at either of the Universities of Oxford and Cambridge" from taking out a medicine licence, when Sir Adam Ferguson said "he could not hear without some emotion an exception in favour of the two learned English seminaries that seemed to cast a reflection on the University of Edinburgh, the first medical school in the world." An amendment was accepted placing Edinburgh on the same footing as the English Universities. Sir Adam afterwards received the thanks of the Edinburgh town council and was presented with the freedom of the city. The University also conferred upon him the degree of Doctor of Laws.

An important amendment was also made to the list of exempted persons in that those who had kept a shop for the sale of drugs and medicines only for three years before the passing of the Act were also allowed to rank with qualified persons. This additional exemption, which

was inconsistent with the resolutions upon which the Bill was founded, probably accounted for the revenue falling far short of anticipations. The Bill became law on July 11, 1783, and was in force from September 2. The latter date is commemorated at the present day in the period from which medicine-stamp licences have to be taken out. The Act of 1783 was replaced by the Medicine Stamp Act, 1785, which in turn was repealed by an Act of 1802, part of which, dealing with the collection of the revenue, is still in force. In 1812 the Act was passed which forms the main part of the Acts at present in force, with its schedule of specified articles and exemptions. Mr. William Chamberlaine's campaign against the administration of the Act of 1785 is historical. The Association which he brought into being was financed by chemists, and chemists took the chief part in bombarding the House of Commons with petitions. The journal of the House of Commons mentions that petitions were received from Ashburton, Barnstaple, Exeter, London, Plymouth, Pontefract, Sheffield, Southwark, Tavistock, and Westminster. One entry will show the nature of the protests:

One entry will show the nature of the protests:

A Petition of the Chymists and Druggists of the Borough of Plymouth and the Towns of Plymouth Rock and Stonehouse in the County of Devon was presented to the House and read: Setting forth That by an Act passed in the last session of Parliament to repeal an Act passed in the 25th year of the reign of this present Majesty, for granting Stamp Duties in certain medicines and for charging other duties in lieu thereof and for making effectual provision for the better collection of the said Duties, the Petitioners are become subjected to grievous burthens, inconveniences and losses arising not only from the many doubts and difficulties in which the construction of several of the clauses in this Act is involved, but also from the mode by which the Duties thereby granted are directed to be collected and paid: and therefore praying the House to take this subject into its serious consideration that the said Act may be repealed.

The schedule of specified articles in the 1812 Act is an interesting list of proprietary articles, mostly obsolete now, and it includes entries "artificial mineral waters and salts" and "lozenges," which have since been repealed. It is said that George III. in his madness was particularly fond of ginger and peppermint lozenges, and that this fondness helped to get the tax removed. Other agitations by chemists against the administration of the Acts took place in 1830 and 1885, and resulted in a more reasonable attitude of the administrators. In 1903, as a result of the Farmer v. Glyn-Jones case, the "known, admitted, and approved remedies" exemption in favour of chemists, etc., referred to in the schedule of the Medicine Stamp Act, 1812, which had laid dormant, came into force, and has much simplified the administration of the Acts.

LIABILITY TO STAMP-DUTY.

The Medicine Stamp Act, 1812, contains a schedule of "Drugs, herbs, oils, waters, essences, tinctures, pills, powders, preparations and compositions" which are liable to duty. These are: "Specified Articles," a list of 550 proprietary articles, nostrums, and specifics, beginning with Adam's Solvent and ending with Zimmerman's Stimulating Fluid. Some of the entries are, however, of interest now. For example, eau de Cologne and arquebusade water are mentioned, but medicine-stamp duty is not charged on these because they pay a heavy spirit-duty. This same principle of not requiring two duties from one article applies to wines which are sold under a wine-licence with a recommendation.

In addition to the schedule of specified articles, there is the "General Charge of Duty," which mentions the various pharmaceutical forms in which medicines are put up and specifically charges what may be classified as (1) secret, (2) proprietary, (3) patented, and (4) held-out or recommended medicines.

EXEMPTIONS FROM STAMP DUTY.

It is now intended to deal especially with the exemptions from stamp duty in view of the threatened alterations in the law.

Sir Nathaniel Highmore, who was solicitor to the Customs and Excise, said on May 12, 1912, before the Select Committee on Patent Medicines:

We have long felt that the whole of this law is very much out of date. One of the exemptions certainly is far too wide, another is obsolete entirely, and I think that it would be possible to place upon the Statute Book, if it was decided to continue or to rearrange these duties, a fairly simple Act of Parliament which would do away with any question of concession at all, and make it perfectly clear as to what was intended to be taxed and get the tax imposed, and what is intended to be exempt and to allow the exemption to stand.

The Committee, which reported in 1914, made a recommendation as follows:

That the Stamp Aets be consolidated and amended to remove the numerous anomalies and unreasonable exceptions. In this connection pure drugs vended entire under a fancy name should no longer be exempt from duty; the distinction between the name of an ailment and the name of the organ the seat of that ailment should be abandoned, and the exemption of medicines generating earbonic-acid gas should be omitted.

Viscount Astor stated in the House of Lords on August 6 of this year that amendments of the Stamp Act will probably follow if the Proprietary Medicines Bill becomes law.

The special exemptions following the general charge of duty are: (1) Drugs in the Book of Rates. This book, dated 1660, known as Sir Harbottle Grimstone's, was used for collecting import duties. It mentions many drugs which are familiar to-day, such as aloes, jalap, cubebs, myrrh, nutmegs, and squill. Sir Nathaniel Highmore told the Select Committee on Patent Medicines that this exemption is quite obsolete. As a matter of fact, there is a difference between this exemption and that for entire drugs, but it does not affect chemists. You may put up, for example, powders of sulphur vivum and recommend them as a remedy for piles or boils. Under the Book of Rates exemption these powders can be sold by any person qualified or unqualified, whether or not he holds a medicine licence; but entire drugs put up and recommended as a cure for disease cannot be sold unstamped by unlicensed persons, who do not come within the terms of the exemption.

The second exemption, that dealing with "entire drugs," is as follows:

All medicinal drugs whatsoever which shall be uttered or vended entire without any mixture or composition with any other drug or ingredient whatsoever by any surgeon, apothecary, chemist, or druggist who hath served a regular apprenticeship, or by any person who hath served as a surgeon in the Navy or Army under any commission or appointment duly entered at the War Office or Navy Office or by any other person whatsoever licensed to sell medicines chargeable with stamp-duty.

It follows that if an entire drug is a secret remedy, a proprietary article, or a patented article, or is held out or recommended (all in the terms of the "general charge of duty"), it may still be sold unstamped and without a licence if the seller is a chemist, etc.; if not a chemist or other exempted person a licence is necessary "Entire" means drugs that have not been treated or dealt with in any manner. The exemption extends to such articles as Rigollot's mustard-leaves; Belloc's charcoal-powder; vaseline; "fer bravais" (dialysed iron); Morson's pepsine; Colman's mustard-oil; tablets of compressed drugs, so long as other ingredients are not present; extract of cascara-sagrada tablets and simple solutions of a drug in water. It has been held that a drug mixed with milk-sugar or starch is not a drug "vended entire." It is in regard to this exemption that Sir Nathaniel Highmore stated that "it is very wide." "I think," he said, "that if [a man sells a pure drug] as a particular remedy he ought to pay the duty upon it, whether it is a pure drug or not."

whether it is a pure drug or not.

The third exemption is that dealing with "known, admitted, and approved" remedies. By this the persons mentioned in the "entire drugs" exemption may sell without stamping such medicines as are "known, admitted, and approved," and for which no claims are made of secrecy in preparing or exclusive right to sell. A medicine does not fall within the exemption of "known, admitted, and approved" remedies unless the conditions

are fulfilled: (1) That the composition is given on the label, or (2) that reference is given on the label to a formula published in a well-known book of reference that has been recognised for this purpose. These do not include periodicals, so that, although "Pharmaceutical Formulas" and The Chemist and Druggist Diary are recognised books of reference, The Chemist and Druggist, being a newspaper, does not come within the definition of a book of reference.

There are two other exemptions consequent upon amendments of the Act. The first is that dealing with artificial mineral waters, etc. Section 4 of the 1812 Act allows victuallers to sell without a licence artificial mineral waters if these are consumed on their premises. The schedule entry which imposed a charge is as follows:

Waters, videlicet, all artificial mineral waters, and all waters impregnated with soda or mineral alkali or with carbonic-acid gas, and all compositions in a liquid or solid state to be used for the purpose of compounding or making any of the said waters.

This charge was repealed in 1833, and it was decided by the High Court in 1877 (Attorney-General v. Lamplough) that this is an exemption from duty altogether. Under it aerated waters, artificial mineral waters, plain effervescing salines, and granular preparations, even though mixed with sugar, are exempt from duty when recommended or when proprietary rights are claimed. Lamplough's saline contained in those days 1.9 per cent. of potassium chlorate with tartaric acid and sodium bicarbonate. Counsel for Lamplough contended that this was a solid preparation for preparing a mineral water, and in the course of the case he asked the Crown analyst whether the effect of adding water to the powder was to make it a water impregnated with soda and carbonic-acid gas, and so bring it within the charge of duty which had been repealed, and the chemist replied that it was. This answer was repeated to the Judge so that there could be no mistake about it, and Baron Cleasby thereupon decided in favour of Lamplough. On appeal, the judgment was confirmed. If the effervescing preparation has added to it a medicinal ingredient which is not "soda or mineral alkali," it is outside the exemption, and is treated like other medicines.

The exemption from duty of ginger and peppermint lozenges and other confectionery was effected by the Stamp Act, 1815. If, however, lozenges are recommended for the prevention, cure, or relief of ailments, they become liable to stamp duty unless they are "known, admitted, and approved" remedies, sold by exempted persons.

ARTICLES OUTSIDE THE ACTS.

In no case is medicine-stamp duty chargeable—

(1) If an article is not a medicine to be used as such for the human body. Mechanical appliances, for example, are not used as medicines or medicaments. Articles of food are not liable.

(2) If the article is not in a packet, box, bottle, pot, phial, or other enclosure. Lozenges, pills, tablets, or any other solid medicine may be sold in a twist of paper, with verbal recommendations, without being liable to duty. Draughts supplied in a wineglass at the pharmacy are not sold in an enclosure within the meaning of the Acts.

(3) If the article is not used or applied externally or internally. Asthma powders or cigarettes, for example, are burnt and the fumes inhaled.

(4) If the article is not uttered, vended, or exposed to sale. There must be a sale or intention to sell. Medicines given away are not dutiable.

Other non-liable articles are herbs, if not medicated; soaps; veterinary preparations; toilet articles if not recommended for ailments; excisable wines.

Mr. Charles Sangster, chemist and druggist, 88 High Street, Slough, has purchased the business of Johnson & Swan, chemists, 149a High Street, which he will continue as a branch.

The dates of next year's British Industries Fairs are announced as follows: London (White City, W. 12), February 21 to March 4; Birmingham, February 21 to March 4; Glasgow, February 28 to March 11.

Pharmaceutical Society of Great Britain.

North British Branch.

The second evening meeting of the session was held at 36 York Place, Edinburgh, on December 15, Mr. James Jack, Ph.C., F.L.S., J.P., in the chair. The following communications were read:

THE CONTENT OF AMMONIUM SALTS IN VARIOUS OPIUMS. By James Leslie Thomson, B.Sc.

After referring to the fact of opium containing ammonium salts not being generally known, the speaker gave the results of examining seventy-one samples: The percentages of NH₃ found are tabulated thus:

Percentage of NH₃
Highest Lowest Average ... 0.47 0.09 0.22 21 Turkish 0.17 0.21 48 Indian ... 0.21 0.18 2 Persian ...

The estimation process was similar to that used in the 'direct' estimation of ammonia. After describing the apparatus and the process, the speaker said: As to the possible significance of ammonia in opium he could not say much, because, meantime, it is impossible to say whether it is present in the fresh juice or not. If present in the fresh latex it might be of considerable importance in the synthesis of the alkaloids. has done a considerable amount of work on the possible methods of formation of alkaloids in plants. His point of view is that plants do not possess the violent reagents, nor can they attain the high temperatures, that experimenters have been in the habit of using until recently. One of the methods he mentions is the production of amino-alcohols from aldehydes by the action of either Aminoammonia itself or of substituted ammonias. alcohols with a ring formation can thus be obtained. These react readily with ketones, forming substances of alkaloidal type. The author expressed his indebtedness to T. & H. Smith, Ltd., for permission to publish this paper, and also to Dr. H. E. Watt for the original suggestion which led to it.

Mr. Thomson also exhibited a series of commercial opiums, including Turkish, Persian, Indian (the new medicinal opium), and the Chinese (rarely seen, as it is wholly used up in China). The exhibition included a set of Turkish opium weights and examples of the various papers, accounts, and invoices connected with the

commerce of opium.

DISCUSSION.

Mr. Dorr said the amount of ammonia present might have practical importance from the fact that the presence of ammonium salts tended to make the alkaloidal constituents more soluble. The origin of the ammonia in the opium might be interesting. There was one plant in which apparently ammonia was a normal constituent. He referred to liquorice.

Mr. Merson said probably the ammonia was due to secondary reactions in the process of collecting and pre-paring the inspissated juice.

The next communication was on:

THE ASSAYING OF OPIUM. By Arthur J. Jones, Ph.C.

Towards the end of last session two interesting communications were read by Mr. D. B. Dett on opium as ay (C. & D., February 28, p. 93, and March 28, p. 93). The speaker said he did not wish to find fault with the process suggested, but he wanted to point out two slight errors. The inaccuracies are, that the 1 c.c. allowance for volume occupied by extractive matter is made in the wrong place, and so the 51 c.c. represents 4.99 grams of opium instead of the exact 5 grams; and also, that the 5 c.c. contains 46.36 c.c. of the original filtrate, making the correction for loss 0.046, instead of 0.045 as stated in the paper. In the process, 8.8 grams of opium are

taken and 80 c.c. of water are added. This is filtered, and part of the filtrate is treated as though it were a fraction of the 80 c.c.; but it is not; it is a fraction of 81.76 c.c., because 8.8 grams yield 1.76 c.c. increase in volume due to extractive—taking the B.P. allowance of 0.2 c.c. for 1 gram of opium. He then suggested the following modification of the published figures:

Ten grams of opium, 3 grams of slaked lime, water to be added 38 c.c.. The extractive on 10 grams will amount to 2 c.c. (B.P. allowance). Hence 10 grams of opium will be represented by 90 c.c. of filtrate. The dilution of the opium is therefore 1 in 9 fluid parts, and if this is further diluted with one-ninth part of itself, a solution 1 in 10 is produced. Thus, 6 grams are contained in 54 c.c. of filtrate, and 6 c.c. of alcohol-other mixture added. The final volume being adjusted to 60 c.c. exactly, as described in the paper, by adding a drop or two of 'alcohol. After standing, 50 c.c. (representing 5 grams of opium) are filtered off and the process followed. The correction for less will be the same as given—namely, 0.045 grams.

Another point connected with the assay of opium that Ten grams of opium, 3 grams of slaked lime,

Another point connected with the assay of opium that was not dealt with in Mr. Dott's paper, is the direct assay of gum as received; that is, in the wet state, which some analysts say gives more accurate results. He suggested

the following as adapted to meet this case.

the following as adapted to meet this case.

(a) A sample is set for determination; (b) 10 grams of the moist opium is weighed out and taken for the assay, using 3 grams of slaked lime and 90 c.c. of water. (i) After the usual digestion any suitable quantity of filtrate is diluted to eleven-tenths of its volume, using the alcoholether mixture (7.5) as before. After standing, 55 c.c. are filtered off, which represent 50 c.c. of "original filtrate." The anhydrous morphine found in this is noted. (ii) The "dilution of the opium" is now required. This is obtained as follows: The 10 grams of wet opium are represented by 90 c.c. of added water, plus one-tenth of the neverthage of as follows: The 10 grams of wet opium are represented by 90 c.c. of added water, plus one-tenth of the percentage of moisture found, plus 0.2 c.c. for each gram of dry gum in the 10 grams of moist opium taken; this sum gives the dilution at which the opium stands. For example, if an opium contained 18 per cent. of moisture, in 10 grams there is 90 c.c. of added water, 1.8 c.c. of water occurring as moisture, 1.64 c.c. volume occupied by extractive (0.2×8.2); 93.44 c.c. representing the volume of "original filtrate" which contains the 10 grams of wet opium taken. This is the "dilution."

From (i) the morphine found is calculated to the dilution for the 10 grams, 1,000th part of this in grams is added, which is the B.P. correction (in this instance 0.0934 grams), and the result multiplied by 10 gives per cent.

He then proceeded to discuss general crude drug assay, to which this instance of opium gives point, in support of Dott's contention for a standard assay process.

Proceeding, he said the assay of crude drugs is a matter with which the pharmaceutical body, through the Pharmaceutical Society, could concern itself. It would be an excellent thing to have a standing committee on the various assay processes required in the drug trade, so that this committee would review from time to time the various publications, and make its recommendations concerning standard processes. The note was from the laboratory of Evans Sons Lescher & Webb, Ltd.

DISCUSSION.

Mr. Dott said Mr. Jones treats the process of opium assay too much as if it were capable of a degree of accuracy, which it does not possess. There is no meaning in saying that the correction has been made "at the wrong place." It does not matter where the correction is made, and it happens in this particular case that the correction is most conveniently made in the final measurement. On the whole, he declined to accept either of Mr. Jones's corrections. All published processes have some defect; the perfect method has not been divulged. With much of what Mr. Jones said on the general question of drug analysis he fully agreed.

Mr. Merson said he agreed that Mr. Jones's criticisms

tended in the direction of undue refinement. It was usual for dealers in opium to have an expert chemist whose report on the opium was accepted by both parties. The result was sometimes to the advantage of the seller and sometimes to the advantage of the buyer, but, broadly

speaking, it worked out equitably.

Mr. RUTHERFORD HILL said: In a note of apology Mr. Guyer said there was a tendency to put too much stress upon minute details of analytical processes. As a manufacturer, Mr. Guyer considered they should never de-As a manuviate from the official processes for standardisation. Any variation resulting from a modification of the process would not be a valid excuse in the eyes of officials working under the Food and Drugs Act. He regretted that suggestions to those responsible for the B.P. were so generally a work of supererogation, because as a rule no notice was taken of them. He favoured the idea of a standing committee of pharmaceutical reference, which, if adopted in a practical way, might have excellent results. Far more standardisation was necessary. For example, the alcoholic strengths of all the B.P. preparations required to be standardised seeing that now the price of alcohol is so great.

Mr. Hill was of opinion that in addition to a committee for fixing of standards, which might very well be undertaken by the Pharmaceutical Society, it was desirable to have also an advisory committee for reference prior to the taking of proceedings under the Food

and Drugs Act.

A paper was then read entitled

A NOTE ON COMMERCIAL FORMALDEHYDE.

By George F. Merson, Ph.C., F.C.S., F.R.S.E.

In commercial formaldehyde there is normally present 10 to 20 per cent. of free methyl alcohol. Wood spirit or true methyl alcohol in its pure state is subject to excise duty, but it has been customary to pass as "duty excise duty, but it has been customary to pass as unty free" methyl alcohol contained in commercial formaldehyde. During the war practically all supplies came from the United States of America. When the U.S.A. went "dry" and ethyl alcohol had become a drug on the market, a sample of formaldehyde was found to contain war 12 per contact proof expirit (athyl alcohol) while over 13 per cent. of proof spirit (ethyl alcohol), while the usual percentage of methyl alcohol was absent. study of the economic conditions indicated that, whilst the cost of methyl alcohol had been steadily rising, that of ethyl alcohol had fallen to such an extent that it paid handsomely to use the latter spirit as a "filler" to take the place of part of the free methyl alcohol normally present in commercial formaldehyde The next communication was a

A NOTE ON TINCTURA IODI (FRENCH CODEX).

By George Walker.

Recently, in Edinburgh, prescriptions have been frequent for tinctura iodi (French Codex). These followed on an article on intensive iodine treatment by Mr. T. Bird, M.R.C.S., which appeared in the "Lancet," March 6, 1920, page 546. Mr. Bird was induced to try the treatment through a statement by Dr. Louis Bourdreau, giving his fourteen years' experience of the treatment, especially in cases of tuberculosis, in which, by gradual increases, he gave very large doses of free iodine, reaching as much as ten grains in one day. Naturally he used the French Codex tincture, which contains no potassium iodide, and there seems a suggestion that the absence of iodism may be due to the want of potassium iodide. After contrasting the French tincture with those of various pharmacopeias, Mr. Walker pointed out that the correct formula for the French preparation is one part by weight of iodine in nine parts by weight of 95 per cent. alcohol. He proceeded to indicate the manner in which pharmacists made the French tincture, and pointed out that a 95 per cent. alcohol can easily be prepared by mixing five volumes of 90 per cent. alcohol and four volumes of absolute alcohol. The product has a specific gravity of 0.816 at 15.5° C. The tinctura iodi (French Codex) may be conveniently made as follows:

Iodine in powder Absolute alcohol ... Rectified spirit, B.P. ... ziij. m35 ... ziv. m25 ... ***

Another suggestion is to take advantage of the greater solubility of iodine in ether (1 in 4 by volume). A perfect solution can be prepared as follows:

> Iodine in powder ... grs. 40 Ether 3ij. 3vj. Rectified spirit

By keeping in a warm place, and frequently shaking, a solution is soon obtained which contains in a ten-minim dose exactly the same quantity of iodine as the French tincture. Other formulas followed, and Mr. Walker said it seems to be suggested that a tincture of iodine made without potassium iodide is less likely to produce iodism. An authoritative opinion from a medical expert on the point would be of practical value from the point of view of economy, as well as convenience in dispensing. If the presence of potassium iodide is unobjectionable, there is no reason why the tinctura iodi fortis of the B.P. should not be prescribed. It has practically the same iodine strength as the French Codex tincture, but is made with the 90 per cent. alcohol of the B.P. But so long as the French Codex tincture is specifically prescribed, it should be made according to the first formula as given above. The absence of definite information and the existence of discrepant figures as to solubility of iodine in alcohol of various strengths led to making a number of practical determinations. Saturated solutions of iodine were prepared at 15.5° C. in absolute alcohol, spirit. rectificat., French Codex (95 per cent., by volume, of alcohol), and spirit. rectificat., B.P. (90 per cent., by volume, of alcohol). The quantity of iodine was determined by titration with decinormal sodium thiosulphate solution, and the actual results, taking the mean of four determinations, are tabulated as follows:

Solubility of Iodine in Alcohols of varying Strengths at 15.5° C.

Weight in Weight in Grains in volume 1 in 7 60 1 in 8:07 weight minims Absolute alcohol .. 1 in 6.00 Alcohol (95 per cent.)... 1 in 6.58 Alcohol (90 per cent.)... 1 in 10.50 1 in 8:34 1 in 8:90 1 in 11.59 1 in 13.90

The speaker then criticised the dosage, and said the whole question is a little confused. Another point is the vagueness of the direction "take in water." Many of the prescriptions give no indication as to the quantity of water. If ten drops of the French tincture are added to a tablespoonful or even a wineglassful of water, there is an immediate separation of solid iodine. Half a tumblerful is quite satisfactory with a ten-drop dose, but for twenty drops a full tumblerful of water (about ten fluid ounces) is required to get a clear solution. It appears that five fluid ounces of ordinary tap-water gave a clear solution; with ten drops of the tincture it required six fluid ounces of distilled water. Solubility figures by other authorities were then contrasted.

Discussion.

Mr. RUTHERFORD HILL said the extent to which the tincture is being prescribed, and the numerous questions received, indicated a good deal of doubt and confusion as to what is the correct procedure in dealing with such prescriptions. It was of great importance that prescribers should instruct patients as to the necessity for adding a sufficient quantity of water.

Mr. Ellior said in his experience it was a common practice to order the tineture to be taken in half a

practice to order the tincture to be taken in half a

tumblerful of water.

The next communication was on

AN INCOMPATIBLE CHLORAL MIXTURE. By Joseph Tait, Ph.C.

The following prescription was presented to one of our members to be dispensed:

Chloral, hydrau.
Tinct, nucis vom. ... 5iij.
Tinct, belladon. ... 5iv.
bromid. ... 5iv. Liq. opii sed. ... Tinct, hyoscyam, ... 31188 Sp. ammon. aromat. Potass. bromid. ... 5iv. Aq. menth. pip. ad Sig. 5ij. every three hours.

The most obvious chemical incompatibility is that of chloral hydrate and aromatic spirit of ammonia. In "The Art of Dispensing" there is a prescription for a bronchitis mixture containing chloral hydrate and ammonium carbonate which in two days developed a strong odour of chloroform. There are both hydrate and carbonate of sammonium in the solution. The evolution of carbon dioxide on one occasion blew out the cork of the bottle. On mixing chloral hydrate and aromatic spirit of ammonia with water in the same proportions as in the prescription, but without the other ingredients, the chloroform soon settled out in globules at the bottom, carrying with it the essential oils of the aromatic spirit of ammonia. On mixing the chloral hydrate with the spirit of ammonia (with aromatics excluded) and alcohol equal to that present in the other ingredients, the chloroform does not separate, but might readily do so on standing. It was found that by heating the solution to 65° C. the chloroform at once separated, and the same result would probably follow in time without heating. This suggests the risk of another dangerous incompatibility. The alkaline mixture contains the alkaloids of nux vomica, belladonna, hyoscyamus, and opium in the free state. If the chloroform separates out, it will carry with it the strychnine and atropine and hyoscyamine. great danger of such an eventuality lies in the possibility of the patient taking a highly toxic quantity of strychnine in the last dose of the medicine. There is another possible development in this mixture. Ruddiman ("Incompatibilities in Prescriptions") mentions a prescription for 3 drachms potassium bromide, 4 drachms chloral hydrate, in U.S.P. aromatic elixir which contains about 25 per cent. of alcohol. The mixture separates into two layers, the upper one having an oily appearance. It consists of chloral alcoholate formed from the chloral hydrate and the alcohol of the elixir. There is the same presence of chloral hydrate, potassium bromide, and alcohol in the mixture now under consideration. The complete mixture, when dispensed as written, in addition to the above, throws down a bulky precipitate, and experiment indicated that this was traceable to the tincture of hyoscyamus. It is, perhaps, not the function of the pharmacist to criticise the therapeutics of a prescription. The curious combination of sedatives and stimulants is, however, so striking as to at once attract notice. In this case the first most striking chemical, as well as pharmacological incompatibility, was obviated by dispensing the aromatic spirit of ammonia, suitably diluted, in a separate bottle, and this satisfied the prescriber.

DISCUSSION.

The Chairman said this prescription was so unusual and so remarkable that he was inclined to ask Mr. Tait if it was not a faked prescription.

Mr. TAIT said the prescription actually turned up in the ordinary course of business in a pharmacy not far

from where they were meeting.

Mr. Hill drew attention to a specimen of cinnamon-water containing a fungoid growth, and which had developed a distinct benzol odour, sent for exhibition by Mr. George Elliot. The benzol odour was due to the oxidation of cinnamic aldehyde, the cinnamic acid being split up by the fungoid growth with formation of cinnamene or styrolene, which has a distinct benzol odour. Mr. Hill also directed attention to a specimen of whin in exceptionally full bloom, sent for exhibition by Mr. Alexander McCutcheon, Kingussie. In May 1920 the plants were exposed to very severe frost during the night, followed by bright sunshine on the following day. The plants were as a result frosted back and killed to the old wood, and lay in that condition throughout the summer. Apparently the energy gathered and stored by the older parts caused a development of flower-buds, which in the subnormally mild conditions at the end of November resulted in a great profusion of flowers.

Votes of thanks were awarded to the authors of papers, and also to T. & H. Smith, Ltd., for the exhibition of commercial opiums, and to Messrs. Elliot and McCutcheon.

Oil of Pimento Leaves.—The Director of Agriculture reports that the time has not yet arrived to start production of pimento-leaf oil on a commercial scale (C. & D., May 29, p. 73). It has been found that pimento leaves yield about 1.8 per cent. of eugenol, and that iso-eugenol can be produced by fermentation of pimento leaves. If a market can be found, Jamaica can produce 100,000 lb. of pimento-leaf oil per annum from materials at present wasted.

Associations' Winter Session.

Cambridge.-The Cambridge Pharmaceutical Association held the adjourned annual meeting on December 18, at which Mr. S. J. Parsons presided over a good attendance of members. The President stated that since the adjournment a meeting of the Committee had been held, at which it had been decided to recommend the advisability of asking the present officers and Committee to remain in office for another three months, in view of future developments. This course was unanimously agreed to. The secretary, Mr. S. F. Barker, reported on the recent Conference held in London. Alderman Campkin, in reply to a request, supplemented Mr. Barker's report of the proceedings at the Conference. In speaking of the decision of the test case, he passed under review the principal pharmaceutical events of last century which have led up to the present position. He pointed out the need for pharmacists to join the new body in order to provide a powerful defence against encroachments on their rights and privileges. After replying in detail to the various questions asked upon the report, Mr. Campkin said that some of his replies were of a non-committal character, but that in the course of a few weeks they would have the whole of the considered proposals before them. One thing he wished especially to emphasise viz., that they should not rely too much upon legislation to further their interests. They had already, perhaps, had too much of legislation and too little regard for administration, as witness the results already apparent by several recent Acts. He called attention especially to the Dangerous Drugs Act, also that dealing with proprietary medicines, both of which certainly would limit the operations of pharmacists. Their policy should have been a combined and well-reasoned opposition to the proposals as The departments were too strong for chemists, and the medical profession, by force of numbers and greater influence, were able to secure their own way. objected to pharmacists coming under trade-union regula tions any more than the medical profession, and in that respect he welcomed the decision under the test case as being somewhat of a recognition of their professional status. He compared the position of chemists before all this legislation. even in the public opinion, with that of little, lost more—they had receded in a sense. Even the separation of dispensing from prescribing might not bring satisfaction to every individual pharmacist, much as we have agreed upon its necessity. Returning to the proposed Pharmacists' Union. Mr. Campkin said this suggested separate body should be of a definite character and in a sense act quite independently of the Society. Speaking in a personal sense, he had for many years given the host of his ability and time to an available and given the best of his ability and time to an unselfish and disinterested regard for their interests, and, so long as health and strength permitted, was prepared to continue. A discussion followed, and it was considered desirable that early steps should be taken to extend the scope of the Association so as to include all members of the craft, student associates, etc. Miss French undertook to arrange a whist-drive, the proceeds to be devoted to the Benevo-

Liverpool.—Mr. Hugo Wolff prefaced a conversational address (C. d. D., December 18, p. 64) to the Liverpool Chemists' Association on The Injunction—What Follows' by the following statement: As a result of the test case we now know that it is outside the province of the Pharmaceutical Society to promote the formation of, or take part in the working of, a trade union. Further, it has been laid down that the funds of the Society may not be spent for purposes which are not specifically provided for in the Charter or in the Pharmacy Act of 1852. It follows that the future activities of the Society must be restricted generally to protection of the professional interests of pharmacists, the promotion of education and scientific and technical training, the conduct of examinations, and the enforcement of the provisions of the Pharmacy Acts. Many pharmacists have held for some time past that these, and these only, are the proper functions

of the Pharmaceutical Society, and it is now necessary for all of us to recognise the fact and endeavour to make the best of the existing position. The affairs of the the best of the existing position. The affairs of the Society must be thoroughly overhauled with a view to enabling it to fulfil its proper functions in an entirely satisfactory manner, and it is up to the pharmacists of Great Britain to continue their support of the Society and take care that it does not suffer as a result of the operations of any other body. It should never be forgotten that all progress in pharmacy during the past seventy or eighty years has been bound up with the Society's development, and it is safe to say that neglect of the Society by pharmacists during the coming years will react to the serious disadvantage of pharmacists, both as professional men and as traders. Professional status without the means of decent livelihood is worth little or nothing to any of us, but as an addition to the equipment of successful business men it is worth a good deal. For that reason, if for no other, it seems imperative that no pharmacist should cease his subscription to the Society and that every care should be taken to maintain and improve the position of the Society as the leading organisation in British pharmacy. Those who have lent material support to the Society during the past ten years or so, simply because of the attempts that have been made in its name to guide and control trade matters, will be ill-advised if they now withdraw that support on the ground that the Society is now held to be legally incompetent to do what so many of its spokesmen have professed themselves able and willing to do. Many mistakes due to ignorance have been made by those who have controlled the destinies of the Society since 1910, but a greater mistake still will be made if we allow our sense of dissatisfaction or disappointment to influence us to the extent of assuming that the Society is now proved to be a useless body, no longer entitled to our support. As a direct outcome of the test-case decision it has been decided to form a trade union for the purpose of carrying on all the work that the Pharmaceutical Society is legally incompetent to do. This, again, is a recognition of what many of us have been insisting upon for some time pastthat is to say, the desirability of setting up an independent body, quite detached from the Pharmaccutical Society, which should have for its objects the improvement of trade conditions in our business. Those who were not in accord with this view have endeavoured during the past ten years to do what was required through the medium of the Pharmaceutical Society. Their efforts met with partial success in spite of many blunders, but now the law has stepped in and definitely stated that the course being pursued was an illegal one. In these circumstances it would obviously have been absurd for the progressive party in pharmacy to allow the failure of others who pursued the wrong course to discourage them from proceeding on other lines, and independent action would have followed in due time. That this would be so was fully apparent, and it is, therefore, not surprising that those to whom the majority of pharmacists looked for guidance should have decided to change their course and seek for salvation by helping to set up the independent body for which the progressive party had so long been asking. A clear explanation of this point is required in justice to those who have always held what the law has now held to be the right view, and whose steady work during a long period of persistent misrepresentation actually laid down the foundations upon which the Conference recently held in London began to build. Every credit is due to these pioneers, and any opposition that some of them may have offered to the methods by which the new official policy has been introduced must be regarded as being instigated by the best possible motives. Having entered their protests not at what is proposed, but at the way in which it was been introduced, it is probably safe to assume that these good friends in pharmacy will not be indisposed to throw in their lot with the majority and continue to work for the general good. We need their assistance, as we need the assistance of all pharmacists with practical ideas and energy to disseminate them, and it will be particularly unfortunate if anyone competent and willing to assist is not permitted to do so because, for the time being, he is not the owner of a pharmacy. Let it always be remembered that some of those most competent to advise and assist us, though not proprietor-pharmacists, are not employees in pharmacy, and that too strict lines of demarcation must necessarily result in their total exclusion from our counsels.

London.—A sub-district meeting of Hampstead chemists was held on December 9, Mr. H. S. Watson (President) in the chair. Mr. Melhuish opened a discussion on the formation of a trade union, and dealt with the decision of the test case. He also gave particulars of the deliberations of the Conference of Local Associations. The scheme as submitted was, with slight modifications, adopted by the Conference and afterwards referred to a special committee to proceed with the formation of a Union of Retail Pharmacists. A discussion ensued, and a resolution to support the Retail Pharmacists' Union was passed.

sheffield.—A meeting of the Saeffield Pharmaceutical and Chemical Society was held on December 15, at which Mr. E. Preston presided. A vote of condolence was accorded to the family of the late Mr. Thomas Mayor, one of the founders of the Society in 1867. A paper was then read on Colloids in Pharmacy, by Mr. A. B. Searle, who is the author of a book on the uses of colloids. The speaker first referred to the historical side of his subject, and passed on to describe the important parts played by the "sol" and "gel" in maintaining the health of the individual. He then described the methods of preparing colloids before speaking of the value of colloidal remedies. A peculiar property of certain colloidal liquids is, he said, that while they are violent poisons in solution they are harmless in the colloidal state. Speaking of the methods of testing the value of colloids Mr. Searle described, among others, Tyndall's test and the Brownian movement, the latter of which depends on the electrical properties of colloids. It is important that colloids should be sterilised, and sterilisation is done during the process of manufacture. If done later, the colloidal properties may be destroyed. In the dispensing of colloids various precautions must be taken, of which the following are the most important:

most important:

(1) The glass of which the bottles are made must not contain or yield any soluble substances. So far as possible the colloids should be dispensed in the same bottles in which they are received, so as to minimise the chances of precipitation. (2) Colloids which are positively charged must not be mixed with colloids negatively charged. Thus, if colloids silver and colloidal sulphur are added together they precipitate each other, and become quite useless. (3) Care should be taken not to add any salts to colloids unless they are specially stabilised against that particular salt. (4) So far as possible colloids should be kept away from light. (5) They must not be heated, as this would destroy their colloidal properties.

The therapeutic failures of colloids are almost invariably due to bad manipulation, to carelessness on the part of the manufacturer, or to ignorance on the part of the physician or surgeon. Mr. Searle concluded an interesting address by recommending colloids as worthy of the attention of medical men. Among the questions asked Mr. Searle was, if the preparation of arsenic, equal in strength to salvarsan, becomes non-colloidal, would the arsenic regain its poisonous properties? The lecturer said it would, and the meeting felt that this is a real danger to the pharmacist, as well as to the patient.

Southend-on-Sea.—On December 17 Dr. J. Stanley White repeated his lecture on *The Ductless Glands* before a meeting of the Southend-on-Sea Association of Pharmacists. A number of doctors and dentists were also present, and Dr. J. Walker presided. At the conclusion of the lecture Dr. Stanley White replied to questions. Refreshments were then served, during which Dr. Grosvenor Hinks proposed a vote of thanks to Dr. Stanley White. Mr. Sydney F. Body, in proposing a vote of thanks to the Chairman, welcomed the medical men and dentists who were present in 'such large numbers, and 'assured them that the one desire of the pharmacists in Southend was the promoting of a correct and sympathetic relationship with the other professions.

Pharmaceutical Archæology.

Wellcome Museum Acquisitions.

From the tumult of Oxford Street, where fevered matrons are for ever fighting their way into drapers' shops, to the tranquillity of the Wellcome Historical Medical Museum in Wigmore Street, close by, is a welcome transition. No pharmacist who has an hour to spare should let slip the opportunity of refreshing his mind among the treasures of the past that lie, skilfully arranged, in the museum; and if, by chance, he can add to the already comprehensive collection, so much the better. Looking in a few days since, a C. & D. representative was taken in hand by the genial curator, Mr. C. J. S. Thompson, M.B.E., who led the way to some of the additions that have accrued since the last previous notice of the Museum appeared in these pages. In the course of conversation, the difficulties that obstruct the path of anyone known to be an envoy of a museum were touched upon. Thompson made the interesting suggestion that provincial pharmacists, especially those in small towns or villages, might rummage through their lofts, cellars, and so forth in search of old mortars, signs, specie jars, and other discarded implements, and send contributions of this kind to 544 Wigmore Street, London, W. 1. The names of the donors would thus be handed down to posterity, and the records of pharmacy would be the more complete.

THE DECORATIVE ELEMENT.

Let us hope it was not sheer irreverence that caused the C. & D. man to remember, now and then, the cartoons of the late Fred Reynolds. Truth, as we know, is stranger than fiction; and when one stands before a series of specimens illustrating, for example, the evolution of the mortar, it almost seems as if a set of Reynolds pictures had taken solid form. In other words, there is often a decorative element in old-time appliances that is lacking in our more prosaic age. Take, for instance, three cork-pressers that have found their rest in one of the large glass cases in the pharmacy section. One is of metal, wheel-shaped, with a handle fixed at a tangent—a graceful implement. The second, also of metal, dates from the eighteenth century, and resembles the modern presser, with the important difference that the top is cast in the shape of a crocodile. Modern usage decrees that, if you press your corks at all, you shall be a severo utilitarian. The third, of wood, came from Hemingway's laboratory in Portman Street, W., and was made about the year 1830. Hemingway was the first, or one of the first, makers of scale preparations; and this robust implement, with a handle about two feet long, tells us at a glance that it was intended for the quick reduction of "shives," to the needed size.

We pass to a large pair of dispensing scales, of French provenance, and dating from the eighteenth century: the head and neck of an eagle, beautifully designed in brass, surmount the pillar. Or we stop before a handsome piece of Italian steelwork, in the shape of a miniature vice to be fixed on a counter and used for extracting stoppers: one would like to discover that it came from the hand of some great craftsman. Or, again, delightful old infusion pots with bent spouts, or soapstamps with the Æsculapian snake and other quaint devices, or a Dutch mortar of gilded wood—all these, to say nothing of the pharmacy pots of three or four centuries ago, remind us that we of the year 1920 are dull dogs.

SIGNS AND SIGNBOARDS.

The ancient shop-signs in the museum—some of them recent acquisitions—may be conveniently classed in three groups. First, there are the carved and painted wooden signs for hanging. The most interesting of these, perhaps, is a replica of a London apothecary's sign dating from 1623—shortly after the publication of the first London Pharmacopæia. In the centre the worthy himself is portrayed in all the magnificence of what looks

like a court suit; and the surrounding panels depict scenes in his professional life—e.g., amputation and a dental operation. A barber-surgeon's sign of the same century is elaborately painted, one side representing a dissection and the other, apparently, a cupping or bleeding. A Bavarian sign of the eighteenth century has a still prominently placed on the escutcheon.

The second group consists of carved figures or heads, which, so far as one noticed, come from the Continent. The oldest, probably, was an Italian Madonna with a bambino, the patron saint of some pharmacy. A hart's head with fully developed antlers explains itself; but a Turk's head is not quite so easy to understand in this connection, and the symbolism of a yawning man's bust is more elusive still. The last-named, it appears, is common in Holland among druggists.

To the third group may be allotted devices that are not manifestly signboards nor statuary. The most elaberate of these, of eighteenth-century workmanship, came from the State apotheek at The Hague. Originally cased, wholly or in part, in glass, it consists of a gilded unicorn standing between two carved plants, one of which may pass for an aloe, while the other bears small leaves and numerous globular fruits that may well exercise scholastic ingenuity. Of more immediate appeal, perhaps, is a small stone tablet covered with a carving of a unicorn and dated 1781. This, like a similar one bearing a cock (a votive offering to Æsculapius in classical times), was found in London.

STYLES OF THE PAST.

Nothing is more interesting, in wandering through the maze of treasures that Mr. Thompson has to show, than to observe the rise, progress, and eventual extinction of a style or fashion in appliances. The case of the shape of vials will serve by way of illustration. Those of the seventeenth century—and the museum has a set of them ranging from about 1-dr. to about 8-oz. capacity—were squat, somewhat as a French vial might be if pressed down while soft. After a time they had to yield in popularity to those of another shape. Or let us examine a pill-cutter of the eighteenth century, a piece of apparatus In appearance something like a fruit-knife, it had, between the blade and the handle, a set of teeth spaced out so as to give, on pressing it on a pill-pipe, pills of an average 4-grain size. In France, a brass cutter with out the knife-blade was used; and there is a French plaster-measure of about the same period, shaped like two sides of a parallelogram. Or let us look at the spatulas of the seventeenth century and its successors, and see with what curious designs, both in blade and handle, tho makers of those ages experimented. As a last instance of an extinct fashion we will select the spice-boxes, the manufacture of which apparently ceased in the 'thirties of the last century. In those days, of course, the knowing housewife went to the chemist for her spices; and these neat boxwood structures, consisting of superimposed compartments duly labelled, evidently met a need. One in the Wellcome Museum has a view printed on the top, like puff-boxes of a later date.

A few lines may be devoted to specimens that attract attention chiefly by virtue of being curios pure and simple. An original bottle of Dr. Boerhaave's Powder (1730), with a steel-engraved label, is worth attention, as also is a pewter pomade-container of the same century inscribed "Caron, Coiffeur, Palais Royal." An otto separator of Venetian glass, with a capacity of about two pints, makes an elegant ornament, and an original Wedgwood crucible is perhaps the most attractive thing in a fine assortment of porcelain. A massive wooden suppository-mould gives the impression that the stocks may have served as its model. And our last look shall be at the cups of moulded sulphur, which in Egypt are used to give tone, if nothing else, to the water or other liquid left to stand in them. Through such stages as these our pharmacy of to-day has passed; and if the grave apothecaries adorning some of the museum's canvasce ever leave their frames at dead of night, they must

feel quite at home.

Westminster Wisdom.

By the "C. & D." Parliamentary Representative.

THE DENTISTS BILL.

In the House of Commons, on December 20, Dr. Addison introduced the Dentists Bill in pursuance of pledges he has given to many members of Parliament representative of the interests concerned. The Bill is based upon the recommendation of the Select Committee. It provides for a register to be set up containing the names of men who have been in bona-fide practice for some years past, and that thereafter no person shall be allowed to practise who is not registered. The object of introducing the Bill at this stage of the present session is that it may be circulated for discussion and negotiation during the recess.

Mr. Benson Harries, Secretary of the Chemists' Deutal Society, informs us that he is sending a copy of the Bill to all members, and will be glad to send to non-members (who are asked to make a donation to the Parliamentary Fund) copies of the suggested circular for members of Parliament. Mr. Harries has also received an intimation that Dr. Addison will be prepared to discuss the Bill with a deputation from the Society. At the time of going to press copies of the Bill are not available.

BRITISH SALVARSAN.

Mr. Waterson, on December 20, asked the Minister of Health if he will furnish the names of the various substitutes for salvarsan and neo-salvarsan, the use of which has been approved by his Department; and whether his Department guarantees that the substitutes are exactly similar to the German salvarsan and neo-salvarsan.

Dr. Addison replied: The following substitutes for salvarsan and neo-salvarsan have been approved: Kharsivan, neo-kharsivan, arsenobillon, novarsenobillon, diarsenol, neo-diarsenol, galyl, and salvarsan (manufactured by an English firm of chemists). No guarantee of the to believe that all these drugs, with the exception of galyl, correspond in general chemical constitution to the respective German preparations. They are all officially tested for toxicity before being placed on sale.

DUTY ON PYROXYLIN SOLUTION.

Mr. Barrand, on December 16, asked the Chancellor of the Exchequer whether he is aware that the Board of Customs and Excise charge the full spirit duty on the spirit contained in pyroxylin solution imported for the production of patent leather in this country; and whether, in view of the heavy tax which this imposes upon the development of the industry, he will take steps, by legislative action or otherwise, to authorise the Board of Customs and Excise to rebate the duty, seeing that pyroxylin solution can only be used for industrial purposes?

Mr. Chamberlain replied that under the law the full duty is chargeable on the importation of all preparations and mixtures containing spirits according to the proof quantity of spirit contained. He had no power to make an exception in favour of the article referred to, and did not consider an amendment of the law

desirable.

MINIMUM WAGES.

Major Entwistle recently asked the Minister of Labour how many Trade Boards have been established to date, and what are highest and lowest of the minima

fixed by these boards for adu't women and men.
Dr. Macnamara replied: The number of Trade Boards established to date is sixty; forty-one in Great Britain and nineteen in Ireland. With regard to the second part of the question, the highest general minimal-time rates at present in operation for adult workers are:

Males and females, 2s. per hour for workers engaged in surgical work in the boot- and shoe-repairing trade in

Great Britain.

The lowest minimum-time rates in operation for adult workers are:

Males, 1s. per hour (for packers with less than one year's experience), fixed by the Coffin, Furniture, and Cerement-making Trade Board (Great Britain).

Females, 4½d, per hour, fixed by the Linen and Cotton

Embroidery Trade Board (Ireland).

DYESTUFFS (IMPORT REGULATION) BILL.

This Bill as amended in Committee was considered in the House of Commons on December 17, and read a third time. Major Barnes moved the insertion of a new clause to the effect that prohibition of import of dyes would cease if manufacturers in the United Kingdom were found to be selling for export at a lower rate than for the home market. Sir Robert Home (President of the Board of Trade) said the power asked for is unnecessary as the Board of Trade already has the right to state what are reasonable prices at which goods should be sold. Sir W. Pearce said the clause would handicap the business of dye-production. The clause was rejected. Major Wood next proposed a clause limiting the dividends and profits distributed by manufacturers of synthetic organic dyes. The surplus over 8 per cent, it was suggested should be used for development purposes and research. Sir R. Horne opposing the clause said that the Board of Trade acquiesced in the amalgamation of British Dyes, Ltd., and Levinstein, Ltd., owing to representations of the Colour Users' Association. The clause was discussed by several members, but was rejected on a division. Colonel P. Williams next moved a new clause dealing with the currency of licences which it was proposed should continue in force until four weeks from proof being given that goods of the same class were manufactured in this country. This was rejected. Thereupon the House considered amendments to clauses. Major Barnes desired that the pro-hibition of the import of dyes should only be operative against Germany as it is the German dye industry against which the Bill is directed. Sir P. Lloyd-Greame, for the Government, contended that German firms would evade this requirement by establishing depôts in other countries where the finishing processes would be carried out Sir W. Pearce said the effect of the amendment would be to cause Swiss manufacturers to import dyes from Switzerland instead of developing the factories they possess in this country. The amendment was rejected on division. A Government amendment to Clause 2 was made rendering licences non-transferable. A provision in Clause 3 to the same effect was deleted. A new subclause was added providing that free importation by licence could be given to dyes produced within the British Empire. A sub-clause also provides that the Act shall come into operation on January 15, 1921. The Bill was read a second time in the House of Lords on December 21, the feature of the debate being a speech of Lord Moulton, in which he said that the alternative to the method proposed in the Bill was to hand over the infant industry to the competition of a combination of the whole German chemical industry. He characterised the chemical trade as the greatest of all trades in its promise for the future. During the Committee stage on December 22, Lord Buckmaster moved an amendment excepting from the operation of the bill a list of twenty-five chemicals, including acetone, tartarie acid, salicylic acid, naphthol, carbolic acid, and gallic acid. He contended that the exclusion of these products would interfere unmecessarily with a great deal of our domestic trade. Other members thought that a list of the chemicals, the import of which is regulated by the Bill, should be published. The amendment was withdrawn on a promise to consult the Board of Trade in the matter.

Deed of Arrangement.

Chaston, Henry Herbert, trading as the Cricine Co.. 510 and 312 Regent Street, London, W., manufacturing chemist. Trustee, P. S. Booth, 31 Kimberley House. Holborn Viaduct, London, E.C., accountant. Dated December 3; filed December 10. Liabilities 7091., estimated net assets 6411.

Chemical Society.

At the meeting of the Chemical Society held on December 16 at the Institute of Mechanical Engineers, Sir James Dobbie, F.R.S., the president, being in the chair, Sir Robert Robertson gave an address on

Some Properties of Explosives.

Prior to the war very little research work in the field of explosives had been accomplished in this country, and most of the available data resulted from investigations carried out by Continental chemists. The war naturally stimulated research work in this special branch of chemistry, and the problems which had to be solved in the course of the war, in the constant quest for more efficient and more powerful explosives, led to steps being taken to gain an insight into the actual working of explosives. An explosive exerts an intense pressure on its surroundings, and the reaction which takes place is of an exothermic nature. Hence the potential energy, represented by the liberation of energy in the form of the gaseous products of decomposition, had to be considered, and also the rate of explosion. Sir Robert Robertson described the investigations undertaken by him in the research department at Woolwich, pointing out that a number of properties of various explosives were carefully investigated, the principal data which were ascertained and definitely established being classified under the fol-lowing headings: Heat of formation; heat of explosion; chemical stability; sensitiveness to shock; rate of detonation; and the pressure evolved on explosion. Comparing the heat of formation of various explosives, it was found that on combustion nitroglycerin evolves 1,478 calories kilo., whereas trinitrotoluol only evolves 924 calories, due to the fact that, in consequence of the small content of oxygen in this compound, it requires a large amount of outside oxygen to effect its combustion. formation of NO2 requires a considerable amount of heat, which is absorbed by the resulting compound; this is particularly the case with detonators. In the nitrocompounds it was found that the less stable group is that with two adjacent NO₂ groups. In view of the fact that explosives exert as much as 300 tons pressure on a square inch, the measurement of the heat of explosion and detonation presents special difficulties. These, however, were successfully overcome by means of a specially designed bomb, the construction of which was illustrated by means of slides. In this connection it may be mentioned that on explosion one gram of trinitrotoluol evolves 924 calories, and 728 c.c. of gaseous products, whereas for nitroglycerin

the respective amounts are 1,478 calories, and 713 c.c.

The chemical stability of an explosive is a matter of considerable importance. The rate of decomposition of an explosive is a function of the temperature, and during storage is influenced by many factors. The products of decomposition produced during storage are more complex than those produced on explosion. The chemical stability of various explosives was evaluated by measuring the evolution of gases at different temperatures. The most stable proved to be 1:2 dinitrobenzene, no gases being evolved even at a temperature of 180°, while trinitrotoluol emits gases at 140°. It was found that stability decreases with the increased facility with which hydrolysis takes place. A table was given showing the amount of gases evolved by various explosives exposed to different temperatures for a period of forty hours, the amount of explosive tested being 1 kilo. It was found that the following results were obtained:

Guncotton at 135° evolves 2,500 c.c. of gases. Nitroglycerin at 115° evolves 1,600 c.c. of gases. Nitroglycerin at 140° evolves 86,000 c.c. of gases. Mercury fulminate at 80° evolves 2.5 c.c. of gases.

Trinitrotoluol at 140° evolves only a small amount of gases-less than 100 c.c.-which is proof of its stability. Explosives exhibit a difference of sensitiveness to shock, whether it takes the form of a blow or a direct impact, and to friction. The degree of sensitiveness was determined by comparison with a strained explosive, for which

purpose picric acid was taken as =100. By comparison, mercury fulminate was found to have a value of 10, and nitroglycerin of 13, a proof of their ready explosion on being subjected to a sbock. All the aromatic nitro-derivatives possessed a value of over 100, trinitrotoluol of 115. The rate of detonation is an extremely important factor, as it represents the rate at which energy is evolved, and runs in line with the heat liberated. Sir Robert described, with the aid of slides, the ingenious apparatus elaborated for measuring the pressure evolved on explosion, by means of which it was established that trinitrotoluol exerts a pressure on explosion of 46.1 tons per square inch in 1/200,000 of a second, while the rate of detonation amounts to 6,950 metres per second.

Sir Robert then proceeded to discuss the various properties of amatols, combinations of trinitrotoluol and The latter provides the necessary ammonium nitrate. oxygen for the proper combustion of the former, and in many respects resembles trinitrotoluol. This was the mixture, in different proportions, employed for filling shells: a mixture in the proportion of 80:20 being used in cast form. This combination is particularly stable, as no interaction takes place until it is submitted to a temperature of 130°. During the war enormous quantities of amatols were consumed, and the production reached as much as 4,000 tons per week. A hearty vote of thanks was passed to the lecturer.

Winter Flowers.

By George Roe.

Many wild flowers proudly bloomed during the month of November, but one cold, frosty, foggy night was their undoing, and, when the morning mist had passed away, desolation and death were revealed. Veronicas, cuckoo flower, herb Robert, wild strawberry, and primroses put up a bold front to outbid all competitors for a lengthened spell of life, in company with others of lowly growth. The hardy furze, with its continuous golden bloom, is not, however, to be beaten, and is there amid frost, snow, and wind, surrounded with a carpet of dead heather and wind, surrounded with a carpet of dead neather and bracken, a fit shelter for insects, birds, reptiles, and other small life. Frost does not easily penetrate its thickly matted network of spiny growth, nor can those enemies, the tit-mouse, wren, or homely cat, enter his natural fortress. The landscape is beautified by its showy natural forcess. The landscape is beautined by its showy flowers often extending for miles across the open land of decayed vegetation and hardy fungi. The gardens with their display of wide, orange-coloured marigolds soon succumb to the succession of fogs and frost and become an unsightly mess.

Numerous feathered pensioners forget themselves and draw near for crumbs in a manner unknown in the warmer and more favourable months of spring and summer. Sparrows arrive in battalions without fear for the crumbs of the early-morning meal. The blackbird, rook, and thrush no longer keep the respectful and safe distance so characteristic of them, but draw nearer and nearer as the frost and snow increase in severity. Then as we wander ankle-deep in fallen leaves along familiar haunts or across the undulating heath, treading underfoot brake-fern and heather, we note the ruddy-breasted robin with its plaintive song, quick, tremulous bursts of passionate outpouring, and low, sweet twittering melodies high up on the branches of the young sycamore tree, content and happy, until, disturbed by a host of larger birds who fill the air with Nature's orchestra, it flies to the woodlands, to be seen no more. In the woods the ghost-like white stems of the birch meet our view, and the hawthorns stand up black and gaunt on this dull December morning. Above, below, is sombre and grey, and winter, the grave of vegetation, is with us.

The wintry west extends its blast, And hail and rain does blaw; And hall and rain does blaw;
Or, the stormy north sends driving forth
The blinding sleet and snaw;
While tumbling brown, the burn comer lown,
And roars frae bank to brae;
And bird and beast in covert rest,
And pass the heartless day.

Trade Report.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C. 4, Dec. 23.

WITH the closing days of the year there is much more evidence than usual of forced liquidation of stocks, owing to lack of finance to meet taxation, and some extremely low prices have been accepted to clear. Such sales, however, have little bearing on the current market values, and where there is no anxiety to realise on financial account holders are advised not to sacrifice their goods in competition with weak firms, but rather wait for market recovery. Now and again one hears of firms in financial difficulties in Mincing Lane, but as a rule nothing comes to the surface, and matters are "arranged" privately. The failure of Farrow's "Bank" has no effect whatever on the produce markets, and "has not jeopardised British credit in the slightest degree." Prices, as a rule, still show a sagging tendency, and business is more or less a matter of negotiation. Crude drugs show few changes. Cartagena ipecacuanha is cheaper, and balsam Peru and tolu are again easier. Chinese galls are steadier; carnauba wax is lower. Opium is cheaper at the source owing to the decline in exchange. Spices remain dull, with anxiety to sell. Peppers and Japanese ginger are lower. Other products which have declined include glucose, linseed oil, turpentine, and shellac.

Hicher	Firmer	Lower		
Citrate of lime	Galls (Chin.)	Almonds	Lemon oil	
Santonin	Phenazone	Alum	Lime acetate	
	Pi enol phthalein:	Ammon.	Linseed oil	
		sulphate	Lithopone	
		Anise oil, star	Mercury	
		Benzonaphthol	Mercurial salts	
		Bergamot oil,	Olive oil, Fr.	
		forward	(c.i.f.)	
		Bismuth salts	Opium (c.i.f.)	
Ea	sier	Camphor oil	Potash caustic	
		(Jp.)	Quinine	
Acetic acid	Palmarosa oil	Cananga oil	(dcalers')	
Arsenic	Pepper	Carbolic acid	Shellac	
Balsam Peru	Potash bromide	Chloroform	bodium	
Balsam tolu	Salicylic acid	(B.P.)	bichrom.	
Barbitone	salol	Citric acid	Sodium caustic	
Benzaldehy le	Saltcake	Copper sulphate	Sodium	
Chloral hydrate	Sulphonal	Glucose	prussiate	
Farina (c.i.f.)	Tannic acid	Hexamine	Sodium	
Ginger (Jp)	Tartaric acid	Ipecacuanha	salicylate	
Hydroquinone	Theobromine,	(Cart.)	Turpentine	
Lemongrass oil	pure	Lead products	Wax, carnauba	

Cablegram.

NEW YORK, December 21.—Business is quiet, with the following products offering at lower rates: Menthol is \$4.00 per lb.; peppermint oil in tins, \$5.00 per lb.; jalap, 45c.; senega, 90c.; gentian, 9½c.; balsam Peru, \$1.75; stramonium leaves, 28c.; mercury, \$45.00 per flask; phenacetin, \$1.75; antipyrine, \$2.50; and hexamine, \$1.30 per lb.

London Markets.

Antimony.—Slackness of business has been unrelaxed, and there is an easy tone to the market both for foreign regulus and crude, while plenty of offers continue to come forward with practically no buyers. Chinese crude for shipment might be had down to about 25l. c.i.f. Far Eastern accumulations and the strong desire to sell there seems likely to lead to a further fall in prices.

BALSAM PERU.—B.P. quality can be had at 12s. per lb. on the spot, being slightly easier than our previous

quotation.

Balsam Tolu is slightly easier, with spot sellers at 3s.

CADMIUM.—Tone has steadied a little, sellers asking 68. 3d. to 68. 6d. per lb., but demand is quiet. German

export restrictions have tended to induce more reserve on the part of holders.

CAMPHOR (CRUDE) .- Good white quality of Chinese is worth from 2s. $10\frac{1}{2}d$. to 3s. per lb., and off-colour 2s. $4\frac{1}{2}d$. to 2s. 6d.

CAMPHOR (REFINED).—Japanese refined slabs are quiet at 5s., and for Chinese ditto 4s. 9d. is quoted.

CINCHONA.—At the Amsterdam auction, held on December 15, 1,432 bales and seventy-nine cases Java pharma-ceutical bark offered, weighing 106,927 kilos., with a quinine content of 3,595 kilos. The offerings were all bought in. The first-hand stock in Amsterdam on November 24 consisted of 12,308 packages Java, 200 packages Ceylon, and seventeen packages Bolivian.

COCA-LEAVES .- Further particulars of the auction held at Amsterdam on December 15 show that of the 4,914 packages Java offered, 1,167 bales and forty-three cases, weighing 63.191 kilos. sold, the total alkaloidal content being 771 kilos. Prices paid ranged from 5c. to $50\frac{1}{2}$ c. per half-kilo., the average unit paid being 26.05c., against 26.11c. at the previous auction. The first-hand stock at Amsterdam on November 24 consisted of 5,842 packages Java and five packages Peruvian.

FARINA is quiet, with No. 1 Japanese offering at from 27s. per cwt. on the spot, and for January-March ship-

ment 22s. c.i.f. is quoted.

GALLS.—Chinese have improved from their lowest, spot sales of the ordinary shape being reported up to 120s. per cwt., and to arrive 90s. c.i.f. is quoted. Plum shape is quoted 130s, to 135s.

GLUCOSE is about 1s. 6d. per cwt. lower, American water-white liquid offering at 43s. 6d. per cwt., duty

paid, landed terms.

IPECACUANHA.—Cartagena is rather lower, offering at 10s. per lb. Matto Grosso is 12s. and Minas 11s. per lb.

LINSEED OIL. While crushers are said to have no important stocks waiting for disposal since their operations have remained restricted for some time past, the trade demand is exceedingly poor. Manufacturers everywhere prefer running out of stock rather than taking new risks in a very weak market. The further slump in seed due to shippers' pressure of offers has dominated the market for the by-product, which has collapsed to new low records down to 391. per ton for spot delivery, and there is no interest in forward oil for the present.

Menthol is quiet, with spot sellers of Kobayashi-Suzuki at 26s. per lb., and for December-February shipment 16s. 6d. c.i.f. is quoted.

The exports from Japan during September amounted to 4,526 kin, valued at 56,214 yen. During the nine months ended September 30 they were as follows:

		1918	1919	1920
Kin	 	208,344	190.977	340,333
Yen	 	1,288,469	1,875,363	5,193,474

MERCURY is very dull, and quotations have come down again since the leading importers cut their price to 14l. per bottle for Spanish in order to meet Italian competition. The range in values has thus been narrowed down considerably, now being 14l. to 14l. 5s. per bottle. Business with the Far Eastern markets has remained absolutely at a standstill, and business on home account is very small. Imports, however, continue on a limited scale.

OLIVE OIL.—As anticipated in these columns (C. & D., October 2, p. 76), new-crop olive oil has declined. The forward price for finest French edible is now 18s. 6d. per gal. c.i.f. London in 40-gal. drums.

OPIUM.—Owing largely to the depreciation in the Turkish exchange, which is still very weak, prices at primary sources have declined fully 1s. 6d. per lb. during the past fortnight, and 12 per cent. test on c.i.f. terms can be bought at about 11s. 6d. to 11s. 9d. per lb. As the London stock of Turkish opium is only small. the reduction in primary markets has not yet been fully reflected here, although prices are naturally easier, the spot value of 12½ per cent. druggists being from 19s. 6d. to 20s. per lb. Persian is nominal at from 45s. to 50s.

SMYRNA, December 4.—The sales this week amount to twenty cases, which at to-day's rate of exchange are equiva-lent to 19s, to 20s, per lb, for soft Yerli qualities and 14s: to 17s. 6d. for manufacturing druggists' qualities. The arrivals are 708 cases, against 1,180 at same date last year, and the stock is about 764 cases. The exchange to-day is piastres 498 per pound sterling for cheque, and \$0.71 for one

Turkish paper pound.

SHELLAC is dull and lower, usual standard TN Orange quality offering at 390s., fine lemon is 600s., fine second Orange 550s., pure button 570s., and AC cakey 450s. Futures are considerably lower, sales including March, at from 300s. down to 225s. per cwt.

STARCHES have been tending easier of late, rice starch crystals offering at 65l. per ton for pure.

maize starch powder has sellers at 27l. per ton.

TURPENTINE.—The trade is very poor, there being, in fact, a deadlock in the demand, and quotations have been chiefly nominal at about 100s, per cwt. for American spirit in all positions. There are ample supplies now in the country, with moderate quantities still coming forward from the Continent.

WAX, CARNAUBA, is lower, fatty grey offering at 148s.

and chalky at 140s. per cwt. on the spot.

WOOD OIL is lower, Hankow offering at 80s. per cwt. on the spot and 67s. 6d. for shipment. Hong Kong is 75s. per cwt.

Seeds and Spices.

ANISE is unchanged at 86s. per cwt. for Russian and

82s. 6d. to 85s. for Spanish.

CANARY SEED is slow of sale, but quotations are unaltered at 132s. 6d. per quarter for good Morocco and 117s. 6d. for cleaned River Plate.

CARAWAY SEED is steady at 36s. to 38s. per cwt. for fair to good Dutch and 24s. for North African.

CLOVES continue quiet, with spot sellers of Zanzibar at 1s. 3d. per 1b. and December-January shipment at 10d.

CORIANDER SEED is neglected, but prices are still quoted at 20s, per cwt. for sound Morocco and 14s, for slightly

CUMIN SEED has been in better demand at 22s. 6d. per cwt. for ordinary Morocco and at 25s. to 27s. 6d. for good sifted.

DILL SEED is offering at 24s. per cwt. without any sales

reported.

FENNEL SEED is firm at 37s. 6d. per cwt.

FENUGREEK SEED is steady, with small sales at 10s.

per cwt.

GINGER.—Japanese is 2s. 6d. per cwt. cheaper, with spot sellers at 42s. 6d.; African is 47s. 6d.; Cochin has been in fair demand; wormy washed is 40s. to 45s.; B cut, 140s., and C, 117s. 6d. Jamaica is slow at 160s. to 170s. for common to good common, and 180s. to 190s.

for medium to good.

PEPPER is quiet and lower, fair black Singapore selling on the spot at 4d. to $3\frac{3}{4}d$., and January-March and February-April shipment have been sold at 4d. to $3\frac{3}{4}d$. c.i.f.; Lampong has been sold at $4\frac{1}{2}d$. to 4d., Tellicherry at $4\frac{3}{2}d$. to $4\frac{1}{2}d$., and Aleppy at $4\frac{1}{4}d$. to 4d. per lb., all spot. White pepper is lower, fair Muntok having been done at $8\frac{1}{2}d$, to $7\frac{3}{2}d$. to 8d. per lb.; January-March and February-April shipment have been sold at $7\frac{1}{4}d$. to 7d. c.i.f.; Singapore has declined from 8d. to 7½d. spot, and the value of January-March shipment is $6\frac{3}{4}d$. per lb. c.i.f.

PIMENTO is unchanged, with spot sellers at 35d. per lb. The bulk of the London stock, which is about 38,000 bags,

s practically in one firm's hands.

Pharmaceutical Chemicals.

ALTHOUGH there is a slightly better demand for a few products, the market generally remains lifeless. It is not thought likely that prices will fall much below their present figures, in fact, it is confidently expected that the market will take on a better tone altogether after he holidays. Meanwhile some nervous holders are offerng at keen figures to secure what business there is, and are the means of lowering prices on an already unsteady market. Aspirin and barbitone have eased. Benzonaphthol and benzaldehyde are lower. Hexamine, hydroquinone, and sodium salicylate have also declined. Phenazone and ammonium bromide are the turn steadier. Pure chloroform is lower and santonin is dearer. Bismuth and mercurial salts are lower.

ACETANILIDE is unchanged, crystals and powder offering at 2s. 9d. per lb., but there is little demand.

AMIDOPYRIN is quiet, with values difficult to maintain at 26s, per lb.

Ammonium Bromide is steadier at 1s. 3d. upwards per lb., but the market is dull.

Aspirin has eased off to 3s. 6d. to 3s. 9d. per lb. on a

quiet market. Barbitone is easier at from 17s. 6d. to 18s. per lb.,

according to seller, with business slack Benzaldehyde (0.03) is easier at 5s. 3d, to 5s. 6d. per lb

BENZONAPHTHOL is lower at 9s. 6d. to 10s. per lb. on a quiet market.

BISMUTH SALTS .- Makers have reduced their prices by 1s. 6d. per lb. for carbonate and subnitrate, the prices for 1-cwt. lots being 14s. 9d. and 13s. per lb. respectively. Other bismuth salts have been reduced by 9d. per lb.

CAFFEINE is in poor demand, and makers' price of 33s. per lb. is ruling for pure crystals, which figure can be

shaded by dealers.

CHLORAL HYDRATE is inclined to weaken on a quiet

market; quotations round about 5s. 6d. per lb.

CHLOROFORM .- The makers have reduced the price of pure B.P. by 5d. to 3s. 10d. per lb., and 50 lb. and upwards are 3s. 9d. per lb. net, with the usual reduction for 2- to 10-cwt. lots.

CITRIC ACID is an unsettled market with plentiful supplies offering at round about 2s. 10d. per lb., less

5 per cent. See also citrate of lime.

COCAINE.-Hydrochloride could probably be bought

under, 16s. per oz. for quantity.

CREOSOTE.—B.P. is dull and unsteady at about 6s. per

c. U.S.P. ex maplewood is 5s. 6d. CREOSOTE CARBONATE is quiet, with offers continuing at about 20s. per lb. EUCALYPTOL is steady at 4s. 6d. per lb. for spot.

FERRUM REDACT. is not in demand, offering at about

5s. 3d. per lb.

GUATACOL CARBONATE is steadier at last week's figures of 198. per lb. on a quiet market.

HEXAMINE is very irregular. Some of the cheaper priced parcels have been cleared at 5s. per lb., but the average quotation is now about 6s. per lb.

HYDROOUINONE is easier at from 6s. 6d. to 7s. per lb..

and slightly cheaper for forward position.

MERCURIALS.—Following the reduction in mercury, makers of salts have reduced their prices by 6d. per lb., and now quote calomel at 5s. 7d. in cwt. lots; corrosive sublimate at 5s. 3d., white precipitate at 6s. 1d.. and red oxide at 5s. 6d. net.

METHYL SALICYLATE is quiet, with values remaining at

about 3s. 3d. per lb.

METHYL SULPHONAL remains at about 26s. 6d., but is steadier and further fall does not seem possible.

PARALDEHYDE remains quoted at 2s. 9d. per lb., but there is only small demand.

PHENOLPHTHALEIN is firmer at from 7s. to 7s. 3d. per lb. on the spot.

PHENACETIN is in poor demand, and prises remain at about 11s. to 11s. 3d. per lb.

PHENAZONE is steadier and shows signs of firming up

now that nervous holders are cleared, quotations averaging about 9s. 9d. to 10s. per lb.

POTASSIUM BROMIDE is lifeless, and holders find diffi culty in disposing of their stocks. Prices are weaker at round about 1s, 1d, to 1s, 2d, for B.P. crystals. These prices are below the parity of German makers' official rate of 25m. per kilo., packing extra, which works out at slightly under 11d. per lb. f.o.b., taking the rate of exchange at 255m. Attention is called to the fact that there is still a considerable quantity of inferior quality offered. and any unduly low offer might easily apply to such.

POTASSIUM PERMANGANATE.-B.P. material is in good supply but poor demand, and the market is far from steady at about 38. per lb.

POTASSIUM SULPHOGUAJACOLATE is dull, and values remain

at about 14s. to 15s per lb.

QUININE is slightly easier, dealers offering Continental

sulphate at about 3s. 9d. per oz. net. A further consignment, amounting to 462,200 oz., has arrived from Java.

SALICYLIC ACID remains at about 1s. 11d. to 2s. per lb.,

with inquiry only occasional.

Salou is only occasionally asked for and quoted at about 4s. 3d. to 4s. 6d. per lb., with occasionally lower prices quoted.

Santonin was advanced from 1l. to 2l. per kilo. on Friday, December 17, the following being the official prices: For 50-kilo. lots, 45*l*. per kilo.; 25 kilos., 47*l*.; 10 kilos., 49*l*.; and 5-kilo. lots, 50*l*. per kilo., net.

Sodium Benzoate seems stationary on a quiet market

at 2s. 6d. per lb.

SODIUM BROMIDE is difficult to move. Quotations remain

at 1s. 2d. per lb., which price could be shaded.

SODIUM SALICYLATE is very quiet, and values are weak, with a further drop registered to 2s. 6d. to 2s. 7d. per lb. for B.P. powder.

SULPHONAL is inclined to weaken, and is now quoted

at 25s. per lb.

TANNIC ACID.—Leviss has declined on a quiet market,

and is now offering freely at 6s. per lb.

TARTARIC ACID is nominal at from 2s. 2d. to 2s. 3d.

TERPIN HYDRATE is about the same at 6s. 9d. per lb. THYMOL remains quoted at 40s. per lb. on a quiet market.

VANILLIN is in little demand and weak, averaging about 58s. to 59s. per lb.

Heavy Chemicals.

London, December 22.

THERE is little of interest to comment on as regards changes in the tone of the market in "heavies." Business is still only being done for immediate requirements, and buyers are at a distinct advantage. Acetic acid has again eased off slightly on a stagnant market. Formaldehyde, after sustaining a number of considerable falls, has steaded up in the region of 140l. Saltcake is inclined to weaken, and Continental lithopone is decidedly lower.

ACETIC ACID is quiet, and prices in all qualities are showing a fall, the market continuing unsteady; quotations may be taken as 681 to 701, for 80 per cent. pure; about 60%, for technical and 75%, for 100 per cent. glacial.

ALUM is weaker; there is only limited demand for

parcels offering round about 191. per ton for lump.

Ammonia Sulphate.—Through the intervention of the Ministry of Agriculture, the price of sulphate of ammonia is to be reduced forthwith. The January price will be 23l. 16s. per ton, delivered, instead of 26l. 13s. 6d. The February price will be 24l. 3s. 6d., and the March-May price 24l. 11s. This reduction follows on a decline in the world price of nitrogen in fertilisers. The manufacturers have also agreed to repay any sum in excess of 23l. 16s. paid for deliveries during the period August December 1920. Export prices are: To the Colonies, from January onwards, 271.; other countries, January onwards, 281. to 30l. per ton f.o.b.

Arsenic.—There is virtually nothing doing, and the tendency is weaker. White Cornish is quoted at about 69l. to 70l. per ton delivered London or Liverpool. The downward movement seems like being rather of a permanent character, although new supplies are not coming along on anything like an important scale. c.i.f. terms

tor foreign are reported easier at around 62l.

BARYTES is steady, with not much business being done; prices remain at about 6l. 10s. to 15l. per ton, according

to quality.

BORAX.-Crystals and powder are moving but slowly,

with the makers' prices unchanged at 41l, per ton,
BORIC ACID also remains quite steady at 76s, for powder and 74s. per cwt. for crystals, but the demand is failing.

CITRATE OF LIME.—According to a telegram from Palermo, the Italian Government have advanced the price of citrate of lime to 1,000 lire. This is expected to give a firmer tone to the citric-acid market, but will probably not influence the manufacturers' price until the present stocks are exhausted.

COPPER SULPHATE is maintained at last week's figures of 401. per ton in casks and 391. in bags, but there is nothing like the usual demand for export.

EPSOM SALT is reported to be moving in limited quantities, and values seem to be fairly steady at about 8/. per ton for commercial quality in bags.

FORMALDEHYDE has steadied up after considerable drops. and is now fairly evenly quoted at about 135l. to 145l. per ton; there is not much movement.

GLAUBER'S SALT is in small demand; current values

about 7l. 10s. per ton in bags.

LEAD ACETATE is quoted at the same as last week or a dull market; white crystals about 66l. and brown broken at about 64l. per ton.

LIME ACETATE is a weak market, and values are lower at 27l. for 80-per-cent, and about 34l. for 92 per-cent.

LITHOPONE is decidedly cheaper, with very small business being transacted; 30-per-cent. Continental "Red Seal" is now offering at about 11l., "Green Seal" at about 41l. per ton.

Oxalle Acid is unchanged at last week's figure of 18. $5\frac{1}{2}d$. to 18. 6d. per lb., but is not in much demand.

POTASH CAUSTIC is weak, and offers are showing a lower figure round about 75%. for 88 to 92-per-cent. material, but there is only limited demand.

Potassium Bichromate remains steady, with some de-

mand at about 1s. 3d. per lb.

POTASSIUM CHLORATE ex works at 8d. per lb. is quiet.

POTASSIUM PERMANGANATE is in poor demand, with supplies offering freely round about 2s. 10d. to 3s. per 1b.

POTASSIUM PRUSSIATE.—Red is about 3s. and yellow about 1s. 7d. per lb.; the market is unsteady, with quotations varying.

SALTCAKE is weaker, the demand has fallen off, and offers are now made at about 14l. 10s. per ton in bags.

Soda Ash is quoted by makers at about 81, 10s, per ton f.o.r., spot parcels offering for export at about 12/ per ton f.o.b.; there is not much business passing in either market.

SODIUM BICARBONATE is fairly steady, and remains quoted at 11l. upwards for refined material in bags; a little business is being done.

SODIUM BICHROMATE has fallen during the week, the open-market price being on about same level as makers prices of 10d. per lb.

Sodium Caustic is also lower at about 27l. per ton f.o.b., which compares favourably with makers' prices for home consumption only of 25l. 10s, ex works; there is only very limited business doing.

Soda Crystals are quoted by makers at 71. per tou carriage paid (home consumption only); export prices being about 81. per ton.

Sodium Cyanide is quiet, and remains at makers' figure of 1s. for 100-per-cent, basis per lb.

Sodium Hyposulphite is unchanged, pea crystals remaining in fair demand at about 30l. per ton packed in good kegs.

Sodium Prussiate is down to makers' price of 1s. per lb., with but small inquiry.

SODIUM SULPHIDE is not in good demand, quotations remaining fairly steady at about 36l. per ton for 60 to

62 per cent, material.

COAL TAR PRODUCTS, Erc.—Aniline oil and aniline salts remain very quiet at 1s. 9d. per lb. Toluol is in poor demand, and remains at 4s. for pure and 3s. 10d. per gallon for commercial quality. Creosote oil is again quoted at 1s. 2d. per gallon on a very quiet market. Carbolic acid crystals is a weak market, with very small business; current quotations about 9d. per lb. Cresvlic acid in all grades is quiet, with values unchanged at 2s. 6d. for crude and 3s. 8d for 97 to 99 per cent. Naphthaline is moving only very slowly, and prices are not at all firm; crude is from 12l. to 20l., crystals 40l., and flakes 42l. per ton. Pitch remains quiet, and prices are difficult to maintain at 11l. 10s. per ton. Coal tar is a dull market, with quotations unchanged at 4l. 15s. per ton.

Essential Oils.

THERE are few changes to report, as there has been practically no buying of consequence during the week: A decline in the forward prices of new crop oils of bergamot and lemon is announced, and Japanese essential oils of camphor are also lower forward. Holders of stocks are viewing the high cost of storing oils with some anxiety, and, so far as the cheaper lines are concerned, storage charges seem to be out of proportion to values. 'The opinion has been expressed that a revision should be made in the Port of London and wharfingers' charges, a case in point being that of star anise oil, the warehousing of which has been reckoned to amount to 8d. per lb. per annum.

ANISE (STAR) .- Sales of "Red Ship" brand have been reported at 2s. 6d. per lb., but stocks at this price appear to have been liquidated, and spot holders are not willing to sell at less than 2s. 9d., at which business has been done, and the market closed at this figure on Wednesday. To arrive January-February shipment has been sold at from 2s. 9d. to 2s. 7d. c.i.f.

Bergamor is quiet and weak at from 32s. to 33s. per lb. for 37/38 l.a. Forward quotations are lower at from 26s. 6d. to 29s. for new crop, end of January shipment. Camphon.—Japanese essential white is nominal on spot

at 180s. per cwt. The forward position is lower at 140s. c.i.f. Brown is lower forward at 104s. c.i.f.

Cananga is lower at 21s, per lb. spot. Cinnamon.—Ceylon leaf is quoted about $7\frac{1}{2}d$. per oz.

CITRONELLA.—There is very little inquiry, and spot quotations are quite nominal at 2s. per lb. for Ceylon and 4s. 9d. for Java

CLOVE.—English distillers are asking 11s. per lb. spot. EUCALYPTUS.—There is very little business passing in B.P. oils, but stocks are firmly held, and large importers are not quoting less than 3s. 2d. per lb. for the small are not quoting less than 3s. 2d. per lb. for the small lots now being inquired for. There are, however, sellers in dealers' hands at 3s. per lb. The shipping season is now nearing a close, and holders express the opinion that should a demand arise in the Spring prices will improve. The Australpont from Melbourne has brought 530 cases and 13 drums, and the Boonah has also arrived with 203 cases. E. Citriodora has been selling at 18s. to 20s. per lb., and E. Amygdalina is unchanged at 1s. 10d.

GINGERGRASS.—Small spot sales are reported at 21s. per lb., but there seems to be no forward buying at 17s. c.i.f.

LEMON is lower in the absence of demand, with spot sellers at 4s. 3d. to 4s. 9d. per lb. and upwards. To arrive from 4s. 3d. to 4s. 9d. per lb. c.i.f. is quoted.

Lemongrass is weak, and spot holders quote $6\frac{1}{2}d$. per oz. MINT.—Japanese dementholised continues quiet, with spot sellers of Kobayashi-Suzuki at 5s. per lb., and December-February shipment at 4s. c.i.f.

The exports from Japan during September amounted to 10,201 kin, valued at 42,489 yen. During the nine months ended September 30 they were as follows:

1918 1919 ... 127,282 ... 271,419 328,634 973,199 1,674,880

Orange is quite neglected, and spot holders are quoting 17s. 6d. to 20s. per lb. for sweet Sicilian, and 18s. for bitter; West Indian sweet is nominal around 14s.

PALMAROSA is easier, with sellers at from 21s. to 20s. per lb. in original pots.

Moroccan Fenugreek.

On account of its fattening properties, fenugreek is much appreciated by the Arabs in Morocco, and in view of their predilection for women of ample proportions, they postpone the date of the wedding until the lady, or ladies, of their choice have undergone successfully a course of feeding on these seeds, according to a correspondent to "Farmacia" these seeds, according to a correspondent to "Farmacia" (November 1920). The cultivation of fenugreek in Morocco at present covers an area of about 900 hectares, mostly situated in the neighbourhood of Casablanca. In 1917 the export of fenugreek amounted to 1,952,700 kilos., and in 1918 to 5,651,900 kilos.; the seeds are packed in bags of 100 kilos. The present price is 37fr. per 100 kilos., in addition to an export duty of 2.47fr. tion to an export duty of 2.47fr.

The Bandoeng Ouinine Factory.

In presenting their annual report for the financial year 1919 (referred to in last week's issue, p. 74) the directors state that the delay in issuing the report was due to the necessity of establishing the bases upon which accounts were to be settled with the Dutch quinne factories, and also with the Cinchona Bureau, in consequence of the somewhat indefinite wording of these agreements. In order, however, to safeguard the shareholders from loss it was decided to distribute, in the form of interim dividends, an amount equal to 100 per cent, of the capital.

RETROSPECT

On September 6, 1921, twenty-five years will have elapsed since the foundation of this company, which began with a since the foundation of this company, which began with a capital of 400,000 florins, of which only 100,000fl, were at the time subscribed. Prior to the creation of the company all the cinchona bark grown in Java was shipped to Europe, and sold by auction in Amsterdam. The price realised declined constantly, until it fetched only 2.5 cents per unit, a figure which not only meant no profit, but in many instances an actual loss to the planter. Many undertakings seriously contemplated the abandonment of the cultivation of cinchona, while others considered the advisability of erecting plants for the production of quinine; two works were actually erected, one for the manufacture of quinine and the other for that of the crude alkaloid, but both were closed after a brief period of activity. The aim of the Bandoeng factory was to manufacture quinine sulphate on behalf of the planters, on the basis of a fixed remuneration to cover the cost of manufacture. From the moment that it commenced to work the price of bark in Amsterdam rose by commenced to work the price of bark in Amsterdam rose by leaps and bounds, until over 10 cents per unit was paid. leaps and bounds, until over 10 cents per unit was paid. The quinine manufactured by the factory was sold by auction at Batavia, and at first was eagerly taken up, but on the delegates of the cinchona planters fixing the sale price no purchasers were to be found, and then a period of declining prices set in. This induced the factory to alter its procedure, and it now proceeded to purchase bark and extract the quinine on its own account, with the result that it was able to pay out a dividend of 10 per cent.

THE CONVENTION.

As the existence of the factory was now assured, the quinine manufacturers sought to include it in their associaquinne manufacturers sought to include it in their association, and after protracted negotiations a convention was arranged between the German, English, French, and Dutch quinine makers, which stood in a close friendly relationship to the American manufacturers. The board now entered into negotiations with the cinchona planters with the object of improving the scale of prices for bark, and establishing a just ratio between the price of bark and that of quinine.

THE CINCHONA CONTRACT.

After endless negotiations the cinchona contract was After endless negotiations the cinchona contract was finally drawn up, including on the one hand seven quinine factories—viz., three German, one English, two Dutch, and the Bandoeng factory, and on the other hand, all the cinchona planters in Java. This contract was to remain in force from July 15, 1913, to July 14, 1918. By its terms the manufacturers undertook to take over annually the equivalent in bark of 515,000 kilos of quinine sulphate, and in addition, during the first year, 50,000 kilos from the stocks lying in Amsterdam. They engagated a minimum and in addition, during the first year, 50,000 kilos from the stocks lying in Amsterdam. They guaranteed a minimum price of 5 cents per unit, and in addition the half of any amount at which quinine sulphate was officially sold above a price of 16.50 florins per kilo. The cinchona contract's actual working lasted only one year, during which the unit price averaged 6.2 cents. The Bandoeng factory was to receive in bark the annual equivalent of 60,000 kilos, of quinine sulphate, all other bark to be shipped to Amsterdam.

THE WAR.

With the outbreak of war the cinchona contract became worthless, since English and French factories were forbidden to trade with Germans, and vice-versa. The agreements wortness, since Engine and Vice-versa. The agreements respecting the distribution of bark, the fixing of the official sale price, the control of the books, etc., became null and void. At first, with the exception of the Bandoeng factory, the demand for quinine declined, so that they were unable to take over their allotted amount of bark when delivery was due. This led to a compromise, whereby the factories agreed to take over an amount of bark equivalent to the quantity of quinine which they had been able to dispose of during the preceding period.

THE PRICE.

It was soon apparent that it was no longer possible to adhere to the terms whereby the price of quinine was to be established, and it was decided to impose upon the manufacturers the obligation to report the price at which they had sold their production during each period, while the price of bark was fixed at half that at which quinine sulphate was being sold.

DIFFICULTIES MET.

Soon regular shipments of bark to Amsterdam ceased, and when the large stocks available in Amsterdam were entirely used up the Dutch quinine factories were obliged to close down. On the other hand, the English, French, and American manufacturers took over their supplies of bark at the harbours in the Dutch Indies, through the medium of the Bandoeng factory. As far as possible all steps were taken to ensure the application of the terms of the contract in the spirit, and also to secure a regular delivery of bark.

HOLLAND AND BANDOENG.

In view of the then existing conditions the two Dutch factories and the Bandoeng factory deemed it advisable to enter into closer co-operation, while preserving their individual freedom of action. It was decided that should one of them not be able to dispose of its output of quining it should receive an indemnity from that factory which had sold more than its allotted share. When shipping between the Dutch Indies and Holland was entirely suspended, the Bandoeng factory alone was in a position to accept delivery of bark and manufacture quinine, while the two Dutch factories received an indemnity representing the difference between their actual allowance and the amount of quinine sold by them.

NEW CONTRACT.

On July 14, 1918, the contract was to terminate; however, the war was still in progress. In the circumstances it was impossible to bring together the manufacturers of the different countries which had concluded the first contract. The Amsterdam, Dutch, and Bandoeng quinne factories therefore proposed to the Java cinchona planters to conclude among themselves a new contract, based on the same terms as the expiring agreement, whereby they promised to cede a portion of the bark supplied to them by the planters to the remainder of the manufacturers participating in the old contract. However, it was not possible to con-clude an agreement with all the Java planters, since some clude an agreement with all the Java planters, since some planters had entered into a contract for the supply of their bark to Japanese firms, while other plantations, standing under British directors, were obliged by their Government to supply their output of bark to a British factory. At the last moment a contract was concluded between the three above-mentioned factories and a number of planters, which collectively represented about 90 per cent. of the Javanese output of cinchona bark. This contract was concluded in Holland, and was to run as from July 15, 1918, to December 31, 1923, the first year being reckoned as the period between July 15, 1918, and December 31, 1929. Owing to the irregular postal service and the censorship many months clapsed before the terms of the new contract became known to the Bandoeng factory, the delegates of the Cinchona Bureau and the producers, and until November 1918 busi-ness was continued on the bases of the old contract.

NEW DIFFICULTIES.

At one time the Government of the Dutch Indies pro-hibited the exportation of quinine, but a month later a system of licences for export was introduced, which worked very smoothly. Quite unexpectedly news was received that the associated factories in Europe had concluded an agreement assuciated factories in Europe had concluded an agreement with the Governments of Great Britain, France, Italy, and the United States, according to which the factories had assumed the obligation to supply to these countries, for the duration of the war, annually 250,000 kilos. of quinine sulphate, and the equivalent of 195,000 kilos of quinine sulphate in the shape of bark. This "War Agreement," dated September 3, 1918, came as an unpleasant shock to the Bandeaug factory, as they had contracts running for dated September 3, 1918, came as an unpleasant shock to the Bandoeng factory, as they had contracts running for the supply of several thousands of kilos. of quinine which had to be fulfilled. Further, the plant of the factory was inadequate to produce this enormous quantity, and it was also doubtful whether the requisite amount of bark would be forthcoming. The Government of the Dutch Indies also protested against the terms of this agreement.

In October, 1918, the Allied Powers requested the Dutch Government to carry out the terms of this agreement, and

made the conclusion of the "economic agreement" dependent upon the fulfilment of the former. At the same time the immediate delivery of 50,000 kilos. of quinine sulphate and of 400 tons of cinchona bark was demanded. At the time the Bandoeng factory had no stock in hand of quinine sulphate, and only a small amount of bark was lying in the harbours. Every effort was made to comply with this urgent demand, and the capacity of the factory was increased to yield a monthly production of about 40,000 kilos, of quinine sulphate, which was only possible at a very great expense, since war prices had to be paid for every requisite that had to be acquired.

During the first months of the agreement the factory

that had to be acquired.

During the first months of the agreement the factory had to cope with many difficulties; the water conduit of the electric power-station of Bandoeng was almost totally destroyed by bandits, and it was decided to erect a separate electric power-station for the factory, which necessitated a further considerable outlay.

FINAL SUCCESS.

During the year 1919 the cinchona planters delivered more bark than they were actually required to supply according to the terms of the contract, and the factory was able to fulfil entirely the terms of the war agreement, which remained in force only one year.

THE NEW AGREEMENT.

The obligations which the manufacturers have now assumed towards the planters consist essentially of the following: (1) Payment of a standard price based on a price of 12 florins for 1 kilo. of quinine sulphate; this price may be increased in relation to higher shipping freights; (2) distribution of one-half of the net sale price realised on the quinine sulphate actually sold on the amount exceeding a sale price of 20 florins per kilo.; (3) payment by the Bandoeng Quinine Factory of a portion of the freight to Holland on the bark taken over by the factory. Further, the manufacturers are bound to take over from the planters annually a fixed amount of bark, and are entitled to acquire annually a fixed amount of bark, and are entitled to acquire an additional quantity over and above the stipulated delivery. Very large sums are in question, since the obligation to accept delivery of bark representing 500,000 kilos. of quinine represents a sum of 16,000,000 to 17,000,000fl, to be paid to the planters. In addition, the manufacturers have promised to supply considerable quantities of cinchona bark to foreign factories, and respecting these supplies no provision has been made in the Cinchona Contract, nor have any legal agreements been as yet concluded. The sale of quinine in different countries still awaits regulation, and legal agreements been as yet copoluded. The sale of quinine in different countries still awaits regulation, and contracts will have to be concluded with foreign Governments, corporations, and business firms. A satisfactory settlement of all outstanding questions between the Dutch quinine factories and the Bandoeng factory was reached in the course of the past year. The former convention entered into between the three factories during the war was declared void, the output of quinine and the sale thereof, as well as the payment for the bark delivered by the planters, and the costs of the Cinchona Bureau for the vear 1919, were booked entirely to the account of the Bandoeng factory. The Dutch factories adopted the point of view that all bark delivered by the planters under the terms of the new Cinchona Contract had been received and purchased jointly by the three contracting factories, and the two Dutch factories claimed that they were co-proprietors of the bark that had been supplied to the Bandoeng factory, in the ratio of three-eighths for the Dutch quinine factory and two-eighths for the Amsterdam factory, and demanded an account from the Bandoeng factory of the disposal of the joint stock of bark, refusing to be indemnified on the basis of the separate contract entered into during the war. This difficulty was removed by the Bandoeng factory assuming the portion allotted to the Amsterdam quinine factory.

(To be continued.)

It was in 1872 (not 1875) that *The Chemist and Druggist Diary* first assumed its present measurements.

GRENADA PRODUCTS.—Among the exports in 1919 were nutmers, 15,354 cwt. (54 281/.); mace, 2.193 cwt. (14,218/.); raw lime juice, 17,000 gallons (3,042/.); concentrated lime juice, 300 gallons (113/.)

FALL IN JAMAICA PRODUCE.—The Kingston correspondent of "The Times Trade Supplement" reports the following fall in prices in Jamaica: Pimento, from 38s. to 10s. per cwt.; kola nuts, from 55s. to 20s.; and honey, from 18s. to 3s. per gallon.



Step by Step.

SIR,—The die is cast: six gallant gentlemen out of five thousand met on Friday, December 17, at 12 noon, in the Holborn Restaurant, London, and decided that henceforth the shareholders of the Chemists' Defence Association must pay a further seven and sixpence for a paper union or be excluded from benefits in their own company. True, the eight directors were also present, the solicitor, and the new secretaries, and in such goodly company the blessing was pronounced. "The voice is the voice of Jacob, but the hand is the hand of Esau."

A MERE LONDONER. (20/12.)

"Be Prosperous in the New Year."

SIR,—The editor of the "London Chemists' Pricelist" inquires as to the method adopted to obtain my price of 3s. In order to be perfectly fair, I handed in a copy of the prescription in question to my dispensing department for it to be priced, and received the following. The purpose of the inquiry was unknown to the dispenser:

		S.	a.
Sodii bromid	ziij.	0	13
Sp. am. arom	ziij.	0	13
Sp. chlorof	ziij.	0	3
Inf. gent. co. conc.	ǯj.	0	2
Aq. dest. ad	žviij.	0	01
Bottle		0	3 <u>ī</u>
Overhead charges	•	0	4
Dispenser's salary		0	71
50 per cent. profit.		1	0
Total	***	_	
		2	11분

I do not think any good would arise from a detailed accountancy of these figures; a penny is insignificant either way. What we are struggling for is a code-word decipherable by all chemists, a method which will ensure a reasonable profit, and the abandonment of the present system of guessing at what it should be. An amusing spectacle is the one of the pharmacist pretending to price a script with half-a-dozen or more stamps on it, wondering what the others have charged. Situated as I am in the midst of many visitors from all parts, it is amusing to see the dear old lady hand in the script with the remark, "I never pay more than 1s. 6d. for it in London." How many times have I heard this "old, old story"! My reply to this is, "Madam, I will hand it into the dispensing department and quote if you specially wish it." The quotation is presented. The price will be 2s. 6d. or 3s., as the estimate may be, offering at the same time the return of the prescription, but not before the script has been marked with the "Bishopsgate" mark, for the benefit of my confrères, on whose loyalty I know I can depend. Does the lady walk out? Not a bit of it. Nine-tenths leave it, and frequently thank you for the polite manner you have offered to send the medicine, and, what is more, they come again. As for the other one-tenth, let them go—the script is marked. If your competitor is willing to make up prescriptions at less than National Health Insurance remuneration, let him; you can be more profitably employed on other work. No, I repeat as a body we are afraid to charge. Other tradesmen are not. Why should we be?—Yours faithfully, Eastbourne.

Medicine-stamp Duty.

Sir.—Referring to the question of medicine-stamp duty, I think a simplification would be to our advantage. I should be prepared to accept for stamp duty all medicines coming within the definition of "proprietary medicines" in the Proprietary Medicines Bill, and suggest duty as follows:

Value up to and including 6d., free of duty.

Value above 6d., an ud valorem duty of 20 per cent., minimum 3d.

My idea is to sweep away all exemptions other than "known, admitted, and approved" in exchange for freedem from duty of small packages. I see no reason why, say, Eno's Fruit Salt should not pay duty; on the other hand, I believe that the small free-of-duty package would be an immense boon to the small individual trader. So far as the definition is concerned, I hope it would suffice to prevent the present abuse of the "known, admitted, and approved" exemption, but not extinguish it.

Yours faithfully, F. C. (13/12.)

On Advertising.

SIR,—"Xrayser II.'s." remarks on advertising (C. & D., December 18, p. 59) remind one that the British public seem to be particularly gullible when reading patent-medicine advertisements, and will believe any tale which they see printed in the papers. If a chemist were to put up three dozen rhubarb pills in a box and mark them at 1s. 6d. he would probably sell very few of them, besides running the risk of an appearance tefore the local Profiteering Committee; but if a big manufacturer packs the same thing for 2s. 9d., puts a patent-medicine stamp on, and spends several thousands in advertising them as "Brown's Boluses for Biliousness," accompanied by moving testimonials from people who have suffered with jaundice from birth and were cured by two doses, then the public will buy them by the gross and insist on having Brown's make. If the Proprietary Medicine Act, instead of being in the form in which it has been put forward at present, were to be drafted on the lines of insisting on value being given for money, and a guarantee that testimonials were genuine and legitimate, with powers to investigate such, accompanied by medical advice if required, it would protect the public much more effectually than any scheme of registration, and at the same time would not interfere with the rights of pharmacists when engaged in their own bonafide business.

Yours faithfully,

Ungulled. (19/9.)

Insurance Dispensing.

SIR,-The report of the meeting of the Kent Insurance Committee (C. & D., December 18, p. 67), in which, after investigating a complaint by a panel patient who was kept waiting for his medicine, the Committee emphasised the fact that had the patient been required to leave the shop, and wait outside in the street while his medicine was being prepared, they would have felt compelled to take a serious view of the matter, brings to light another of the minor difficulties which the panel chemist may trip over if he is not careful. There are probably very few chemists who deliberately tell a customer to go outside and wait, but it is an understood thing during the rush hours that the prescription should be left and called for later, and most people are agreeable to this, recognising that the prescription takes a little while to dispense, and that they must take their turn with other customers. If this were not so the service would be rendered unworkable, for some chemists doing a large panel business take in perhaps as many as a hundred scripts in the evening, and if all these people were to wait in the shop while their medicine was being made up the crush would stop trade altogether. It is only by keeping them moving that the work can be got through. It must be remembered, too, that panel dispensing covers any preparations a doctor may choose to order, and, although the large majority of scripts are for mixtures, there is a fair sprinkling of ointments, powders, etc., which take a little time to prepare, and the conditions of working, therefore, cannot be compared to those obtaining at surgeries and dispensaries, where the only medicaments ordered are those kept ready-made, and merely require boxing or bottling to hand to the patient, who is thus served on the spot. It is to be hoped that the present amicable "give and take" system will not be interfered with, as no chemist refuses to put himself out to oblige a customer whose case is really urgent. Yours faithfully, urgent. RUSHED. (18/12.)

Subscribers' Symposium.

For interchange of opinion among "C. & D." readers, and brief notes on business and practical topics, especially new ideas.

Appreciations.

I am delighted with the C. & D. Diary.—M. V. (15/12). I find your journal of great value for practical work.—W. M.—(16/12).

The value of the C. & D. as a trade paper is incalculable.—J. B. (259/20).

I have read the C. A D. since it was established in 1859—the year I was apprenticed (3/12).

Beecham says his pills are "worth their weight in gold." I say the same about the C. & D.—S. L. (26/11).

If my other investments were on a par with this I should not experience too much anxiety in the future.—
F. C. (255/13).

Enclosed please find cheque 11., our year's subscription for 1921. In spite of extra cost, we still think this will be our best investment for the coming year. In these days of falling markets it is just as essential to keep in touch with current prices as it was when markets were rising. Your market reports and advertising pages supply just the information needed, while the literary matter is par excellence, and sets a standard for others to follow.—(17/12).

Hair-dye Glint.

Crinalio (9/12) writes: Can anyone suggest a reliable and harmless mid-brown hair-dye which will not leave a glint (reddish) on the hair after use? A customer has used a silver dye (of the usual type), but she objects very much to the after-glint. I presume the glint results from the use of the dye, and so far as I know or can find, formulas for hair-dye do not seem to mention it.

Liability of Dentist,

Referring to the legal query. "E. M." (3/12), in the C, C D., December 11, p. 80, C H. B. (14/12) writes: "If the dentist took a faulty bite, it is his fault (not entirely, probably), but it is part of his skill in his work to see that he gets the correct articulation. The majority of people will bite wrong, and if the dentist finds that he has made a mistake he should remake the plate and keep his reputation."

Legal Queries.

- W. L. W. (7/12).—The certificate of the qualified manager of a chemist's branch shop must be exhibited on the premises. In the ease of a limited company the name of the qualified chemist who acts as superintendent under the Poisons and Pharmacy Act must be notified to the Pharmaceutical Society.
- A. W. T. (21/12) asks whether the Increase of Rent Act, 1920, restricts the right of a landlord to grant a lease. [The Act does not interfere with a landlord's right to grant a lease; but it limits the amount of rent he is entitled to charge in the case of premises which come within the provisions of the Act.]
- E. B. (14/12).—(1) Rebate of part of the duty on the spirit used in medicinal preparations made in this country is allowed on certain articles which are recognised by the Board of Customs and Excise as incapable of being employed as beverages. The method of computing the repayment was explained in the C. & D., December 27, 1919, p. 75, where a series of tables was given to facilitate the process. (2) The Customs Tariff of the South African Union fixes the duty on proprietary medicines at 25 per cent. ad valorem, and if the medicines contain more than 3 per cent. of proof spirit, spirit duty is payable in addition.
- J. R. W. (18/12).—(1) Under the Pharmacy Act, 1868, the dispensing conditions regarding poisons are not limited to the prescriptions of registered medical men,

but under the Cocaine and Opium Regulation the prescription must be that of a duly qualified medical practitioner. Under the Army Council Order a registered dentist or veterinary surgeon may also write prescriptions for the drugs covered by the Order, which include cocaine as mentioned in the Cocainc and Opium Regulation. It is necessary for chemists to carry out the more stringent requirements of the last-named Regulation, it being considered that the Regulation overrides the Pharmacy Act in the case of cocaine and opium. (2) Strictly speaking, ipecacuanha wine is a Part II. poison, because of the presence of a vegetable alkaloid, but in practice the emetic properties of the preparation are sufficient protection against accidental poisoning. (3) The Regulations under the Dangerous Drugs Act are not likely to be in force for some two or three months, but Regulation 40s of the Defence of the Realm Act remains in force, having been continued by the War Emergency (Continuation) Act for twelve months after the termination of the war. The war (as a whole) has not yet terminated.

Melrose (13/12), who represents legatees under a will, asks whether the legacy duty of 10 per cent. paid by him on legacies of 100l. up to 300l. is correct where the gross value of the estate is about 2,500l. He has been told that the same rate will be payable on the residue, and, referring to the statement in the C. & D. Diary as to the exemption granted where shares of residue do not exceed 1,000l., as they would not in his case, he wishes to know how the case stands. He also complains that the Somerset House authorities refuse to allow him to deduct expenses of sale, auctioneers' fees, etc., in assessing duty on the legacies. [The rate of duty chargeable on legacies does not, as a rule, depend on the value of the estate, but upon the degree of relationship of the legatee to the testator. The rate upon a legacy to a husband or wife, parent or child, is 1 per cent.; to a brother or sister or the child or grandchild of a brother or sister, 5 per cent.; to any other person, 10 per cent. The exemption referred to in the Diary applies only to the duty of 1 per cent.—that is, where the legacy is to a husband or wife, parent or child, and it includes a legacy of residue to such relatives. Funeral, testamentary, and executorship expenses are proper deductions against legacy duty, but the Commissioners are given a discretionary power to fix what is the "true value" of the estate. The rule is not to allow any deduction for costs of sale of property, except where the method of sale resulted in an enhanced value to the assets. If this has happened "Melrose" ought to represent it to the Commissioners.]

Taxpayer (30/11) says his financial year for incometax assessment ends on March 31, and that hitherto he has not taken stock. He asks if stock must be taken at the same time in each year in succession; and as it is impossible to take stock and calculate its value during the last week of March, he wants to know if it really matters at what time in the tax year the stock estimate is made. He would like also to know the name of a textbook on the subject suitable for chemists. [The income tax year ends on April 5, and in strictness the income to be returned for assessment should be the income made in the year beginning on April 6 in one year and ending on April 5 in the next. That is without reference to the three years' average which is taken in the case of a trade income. The assessment is sup-posed to be on the profits of the business within the tax year, and, of course, these profits can only be found if account is taken of the difference, if any, between the value of the trader's stock at the beginning and at the end of the period upon which the assessment is made. Thus a trader might have a gross profit in his cash account, but this might be due to his having reduced his stock to a point far below the normal, which would be shown when the value of the stock was set out in his goods account, and his assessment for income-tax would have to be on the reduced figure based on the decrease in the value of the stock. "Taxpayer" ought to have in the value of the stock. "Taxpayer" ought to have no difficulty in making the necessary adjustment if he takes the stock about the same time each year fairly near the close of the tax year.]

Miscellaneous Inquiries.

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

A. M. W. (11/12).—The Make-up Powder for giving the effect of statuary to the body is the metallic bronze powder. The skin is well greased with cold cream before the powder is applied.

Rollon (14/12).—The addition of a small quantity of sulphurous acid or sodium sulphite would probably prevent the development of a pink colour in methyl anthranilate.

G. R. J. (218/16).—BRIQUETTES of sawdust can be made by compression without any binding material, but small coal and pitch can be added if desired.

Nemos (7/12).—(1) Soil Fumigant.—The powder form consists of napthalenc in fine flakes. For garden purposes about 1 lb. is needed for every 8 to 10 sq. yds.

(2) MOTOR-CAR BODY POLISH.—The kind you require is made on the lines of furniture oil, as follows:

... Oiv. Linseed oil ... živ. Tincture of benzoin ... Archil зij. Vinegar зхvj. of antimony Solution chloride ъvј. Spirit 3x. Mix.

(3) Liquid Soap.—The simplest form is prepared by liquefying soft soap with spirit and adding a suitable perfume. A good variety can also be made from coconut-oil on the lines of the formula for coco-nut shampoo in the C. & D., October 16, p. 52. (4) Absorbent Liniment for Veterinary Use.—The following are the two types of this class of liniment:

Ol. picis rect. ... živ. ~.
Ol. lini ... živ. ,... 3j. Potas. iodidi živ. žij. Apply with a brush once Glycerini 3xvj. daily.

J. A. P. (2/12).—TINCTURE OF IODINE of the French Codex is a solution of 10 grams of iodine in 120 grams (by weight) of 90 per cent. alcohol. No potassium iodide is employed. A note on the dispensing of this tincture was printed in the C. & D., May 29, p. 79.

Combien (1/12).—The usual practice in the case of an odd quantity of tablets ordered in a prescription is to charge the nearest quantity which is put up, on the principle that the tablets remaining will probably be

R. B. (1/12).—Indian Liniment.—C. & D. Diary, 1917. The formula for this is as follows:

> Rad. anchusæ žss. Pulv. capsici ξj. Oj. . . . Sp. tereb. ...

Macerate for a week in a warm place, strain, and add:

Ol. camph. essent. 0j., Ol. sassafras ъij. Ol. origani 3ss. Misce.

Hsquire (29/11).—GLYCERIN. DIAMORPHINÆ Co.:

Diamorphinæ hydrochlor. gr. v. Chloroformi ... $\mathfrak{m}\mathbf{x}\mathbf{x}$. Syr, rosæ 3x. Aq. dest. ξij. Alcohol ... mxL. Glycerini ad 3xx.

Dissolve the diamorphine salt in the water and add the syrup gradually, shaking after each addition. Dissolve the chloroform in the a'cohol, add to the syrup; then add glycerin to make one piut.

J. A. C. (19/11).—BAG-HANDLE MATERIAL.—This consists of paper pulp which has been coloured blue, pro-bably by ultramarine. Very little is extractable by spirit, and of the 2.1 per cent. extracted by water gelatin is the chief part. The ash is light and friable in character, and amounts to 12.6 per cent., which may be suggestive of the paper pulp being impregnated with a little aluminium salt or other ingredient which would harden the gelatin.

(11/12).—SOAP-BUBBLE SOLUTION.—Professor C. V. Boyes, in his book on "Soap-bubbles, following method of making this solution: "Fill a 40-oz. clean stoppered bottle three-parts full of distilled water, or two until it dissolves. Nearly fill up the bottle with Price's glycerin and shake well. Leave the bottle, Price's glycerin and shake well. Leave the bottle, stoppered of course, for about a week in a dark place. Then with a syphon draw off the clear liquid from the scum. Add one or two drops of liq. ammon, fortiss, to each pint of the liquid. Do not filter, and never return the liquid which has been used to the stock bottle.'

(1/11).—PHOTOGRAPHIC DEVELOPING IN BULK.-A good account of how photographic developing and A good account of how photographic developing and printing are carried out on a large scale is given in "The Official Handbook" of the British Photographic Manufacturers' Association, Ltd., Sicilian House, Southampton Row, London, W.C. The modern photographic developers are now made on a large scale in this country by Johnson & Sons (Manufacturing Chamical Ltd., Class Street Eighburg London F.C.) Chemists), Ltd., Cross Street, Finsbury, London, E.C. 2.

J. M. (15/12).—WATERPROOFING CART COVERS.—The process to which you refer consists of painting the surface of the fabric with the following:

Boiled oil 1 lb. Beeswax Litharge ... 13 lb. Mix

Killie (15/12).—CHEMISTS' PRICES.—We do not consider your complaint justified regarding the charge for the santonin dog powder. So recently as August the retail price of santonin was 8d. a grain, at present it is 3d. a grain. The dispensing-fee for a single powder is 3d. It is obvious that the proprietary powders to which you refer cannot contain 20 grains of santonin and be sold at 1s. The charge of 2d. an oz. for Epsom salts is not exorbitant, as no shopkeeper can at the present time live on penny trade.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Dec. 15, 1870.

German Characteristics

German Characteristics

Provided with a Prussian sauf-conduit, obtained through the kind intervention of Mr. Washbourne, the American Minister in Paris—without whose good offices no British subject could have quitted the city—we traversed the German lines, meeting with great kindness and courtesy from all the Mayors and all French officials with whom we had to deal, and witnessing unparalleled and unjustifiable cruelty perpetrated with the most systematic brutality towards the poor defenceless inhabitants of this vanquished country by the so-called ultra-civilised descendants of the Goths and Huns. Through all the towns and villages occupied by this calculating, cold-hearted soldiery, I scarcely saw one redeeming trait to their character—everywhere oppression, pillage, destruction, wanton mischief, and conduct to women too execable to describe. The wineshops were all sacked by the first invaders, who ruthlessly burst open casks, inundating the cellars with rich old wines, on which floated the livid corpses of the drunken barbarians too besotted to escape their self-inflicted punishment. The druggists in these towns were earning a comfortable livelihood by selling brandy (schnapps) of the most abominable quality. I had hitherto thought my own countrymen were about the strongest drinkers in Christendom, but having scen files of Prussian soldiers swallow each their tumblerful of this undi'uted alcohol has so shakem my belief in British capability of inebriety that I henceforward resign all pretension to its claim on behalf of my fellow-countrymen.

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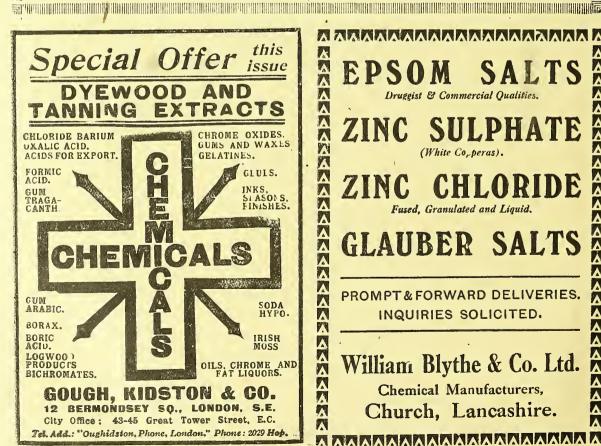
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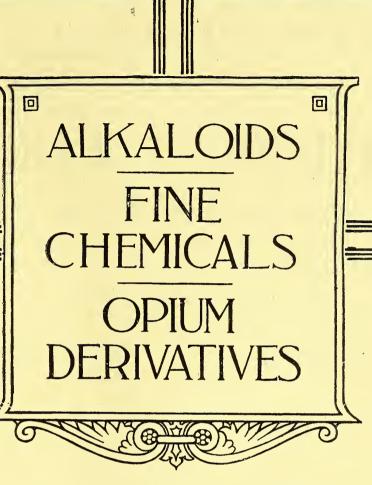


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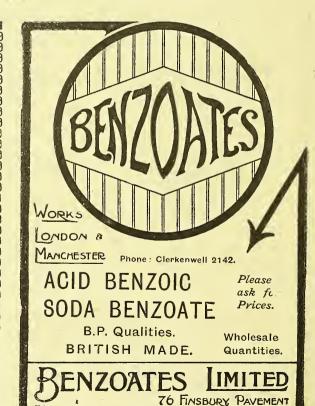
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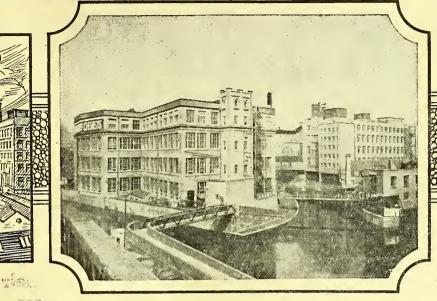
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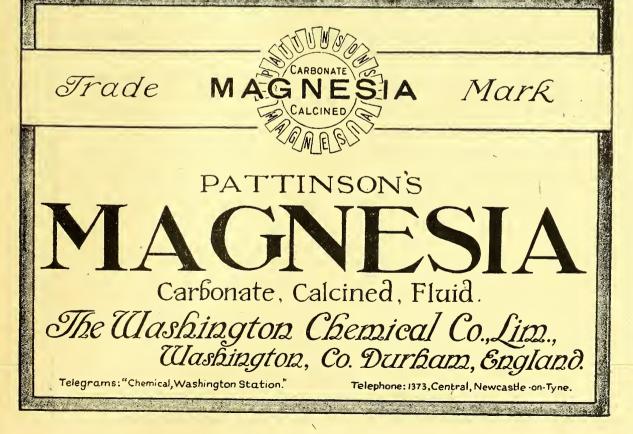
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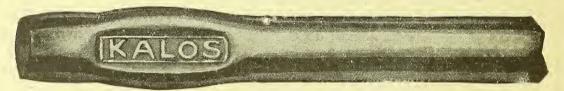
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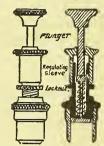
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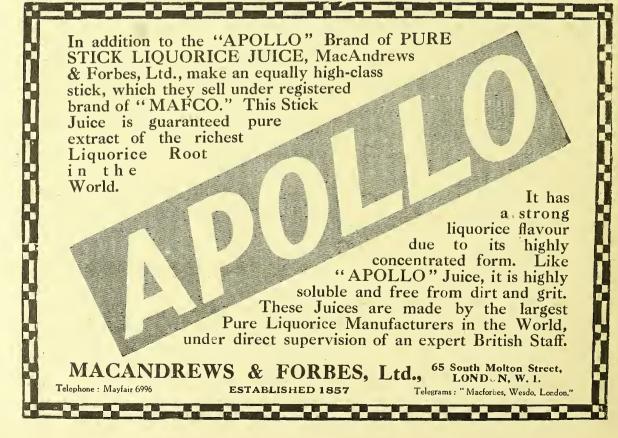


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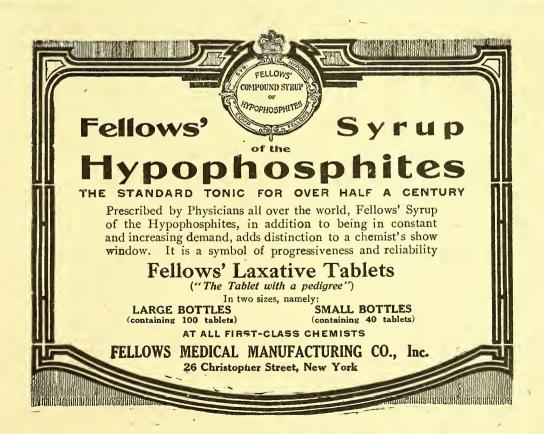
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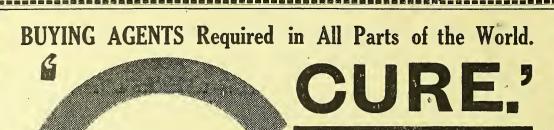
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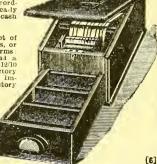
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"Improved Dudley" TEU Colts.
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The Medical Profession are recommending VITMAR for delicate Children and Invalids.

If you do not yet stock it your wholesaler will supply you.

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Tonic, Restorative, Digestive Wine.

Known throughout the World, and prescribed in all cases of ANÆMIA, DEBILITY, and CONVALESCENCE, to Young Women, Children and the Aged.

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"For more than thirty years St. Raphaël Wine has been exclusively prescribed, with success, in the Paris hospitals as a rure to ic, by eminent physicians, such as Magendie Roston Chomel, Velpeau, Requin, Monneret, Trousseau, Grisolle, Laënnec, &c."—Union Médicale, May 8 and June 12, 1873.

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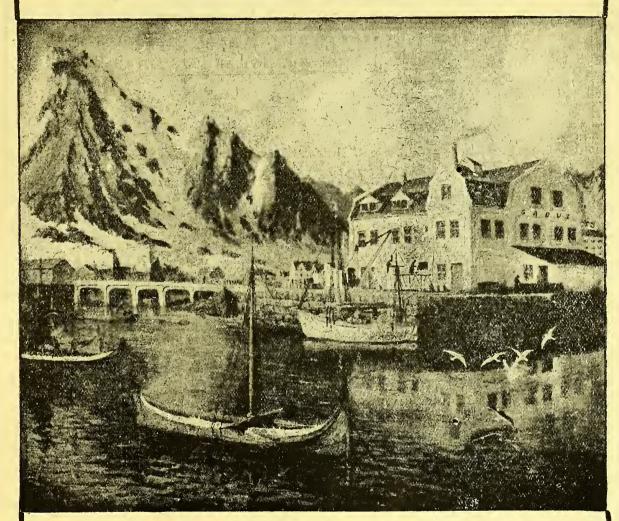
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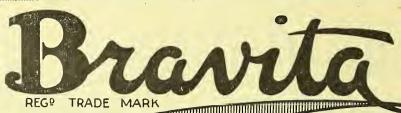


View of the Gadus Cod Liver Oil Factory at Svolvaer, Lofoten Islands, Norway.

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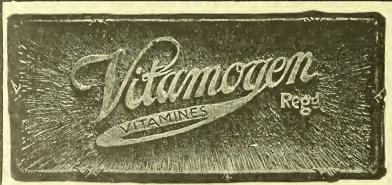
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The longer "Bravita" is taken the better it is liked.

The more "Bravita" becomes known the greater will be the demand for it. We are taking steps to make its merits more widely known. Those who are using it not only speak highly of it, but are recommending it to others. Medical men are

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VITAMOGEN contains the essential Vitamines in an active and concentrated form. VITAMOGEN is in itself a food of the highest potency, rationally concentrated according to approved scientific methods. It is rich in organic. i.e. assimilable Phosphorus, and the proportion of outritive constituents is well balanced to meet the physiological needs of the organism. VITAMOGEN stands alone as a means of supplying the Vitamines—an entirely new food element. VITAMOGEN is packed in two sizes, 2/9 and 5/9, obtainable from all the principal wholesale houses. Literature on VITAMINES will be sent on

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We pack in cartons, composite containers and tin canisters (plain or with own labels affixed free), and in BULK for own packing.

QUOTATIONS FOR TINS OR TONS UPON APPLICATION.

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ESTABLISHED 135 YEARS. R. J. FULLWOOD & BLAND'S WORLD-RENOWNED Dairy Preparations command the biggest sale in Great Britain and Ireland, and are used and recommended at the PRINCIPAL DAIRY INSTITUTES. ANNATIO Colour, Essence of Rennet, &c. 31,33&35Bevenden St., Hoxton, London, N.1 And Rennet Works, Fllesmere, Salop.

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Please apply for supply of descriptive bills for distribution or counter use, to

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Sells readily ALL the

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MEDICINAL SNUFF. ABSOLUTELY THE FINEST REMEDY FOR CATARRH & COLD IN THE HEAD.

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"FINOT" CACHETS

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With inscriptions in any desired tint; also Plain or Embossed. "A distinction all their own."-C. & D.
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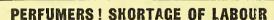
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PUFFS of ALL KINDS in DOWN and WOOL SOLID FACE POWDERS

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COURT HAIR

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THE GOLD MEDAL FRUIT DRINK.
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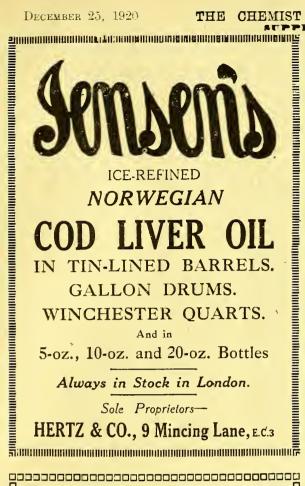
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[See pp. 440-1, "C. & D."] Diary, 1920.

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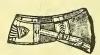
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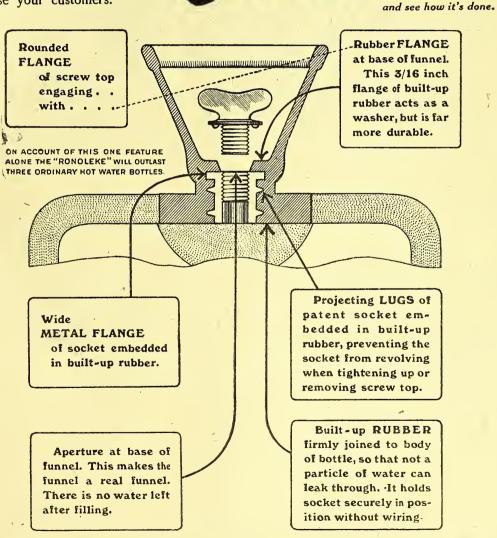
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ESTABLISHED 1833.

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The "Ronoleke" will never require repairing at the neck.

The "Ronoleke" is the only Perfect Watertight Hot Water Bottle

SOLD BY ALL LEADING DRUGGISIS SUNDRIESMEN.

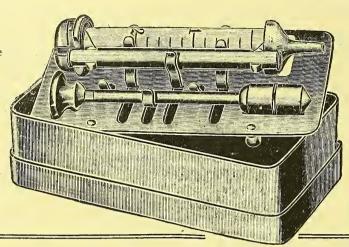
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These
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Guaranteed absolutely accurate and of high-class finish and quality.



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DECEMBER 25, 1920

THE CHEMIST AND DRUGGIST

UPPLEMENT

NOTICE TO THE TRADE!

Telephone: Museum tof.

The Directors of the

BRITISH "ANTAPSAL." Co. Ltd.

Beg to announce that during the past few weeks their Company has undergone reconstruction, and that they have take manufactions should be an dressed.

The "ANTAPSAL" NASAL APPLIANCE (invisible when worn) is patient of oreal Britain and ab oad. It is a transparent, self-acting, continuous and curative Inhaler, which rests with father lightness guite naturally inside the na strift, and may be worn with countries comfort and without attracting strention in the street, at work or asseen, and charges every breath with a waistcoat pocket ready for use. A simple, harmless, pleasant and effective scientifier membry:

SPECIAL OFFER TO CHEMISTS.

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"CATARONOL" OUTFIT for Colda, Catarria, Bomchiris, Sunfed Notritia, Loss of Hearing, Hay Fever, Adenoids, Headeche, Sore Throat,

"CATARONOL" OUTFIT for Colda, Catarria, Bomchiris, Sunfed Notritia, Loss of Hearing, Hay Fever, Adenoids, Headeche, Sore Throat,

"Text in may nose you can't see and the season of the season of





A SATISFIED CUSTOMER IS THE CHEMIST'S BEST ADVERTISEMENT

The Marvel Whirling Spray Syringe

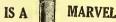


Gold Medal Awarded, Paris, 1902, by the Société d'Hygiene of France

as the latest and best improvement in Vaginal Syringes. Particular attention is called to the fact that by reason of its peculiar construction the Marvel Syringe dilates and flushes the vagina with a volume of whirling spray, which smooths out the folds and permits the injection to come into contact with and cleansing the entire surface.

Fully Protected by Patents.









You can safely recommend it.

Has no rival on the market, is well advertised, pays a good profit, quality guaranteed. The MARVEL is returnable for exchange if found defective and reported promptly.

> Trade price, 125/- per doz. Retail price, 15/- each.

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Colds and Chills are Prevalent.

BE PREPARED!

Fastnet

Made of Golden Fleecy Material.

Size No. 3 ... $12'' \times 9\frac{1}{2}''$... 29/- per dozen , 4 ... $13'' \times 10\frac{1}{2}''$... 31/- , $5 \dots 14\frac{3}{4}" \times 12"$ $6 \dots 16" \times 15"$... 33/-... 36/- $7 \dots 18'' \times 16^{1''}$

Similar lines :

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Vulcanite DOUCHE FITTINGS

- Spare Parts .
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BONE SHIELDS

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French CAPPING SKINS (opaque and transparent)

TOOTH COMBS

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Cheap lines in NAIL FILES (bone and steel) carded SAFETY RAZORS and spare blades.

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And all kinds of Surgical and Hygienic Rubber Goods.

EXCELSIOR CREPE BANDAGES. FAST EDGE.

Owing to the War the supply of Crepe Velpeau Bandages is discontinued. We, are, therefore, placing on the market a bandage of English manufacture which will be sold as

GIMBER'S EXCELSIOR

CREPE BANDAGE

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An Elastic Bandage. Containing no Indiarubber.
Superseding Elastic Stockings, Webs, Bandages, and at half the cost.
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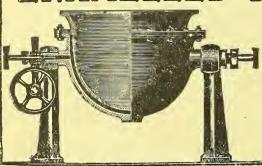
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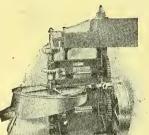
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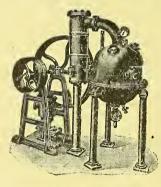
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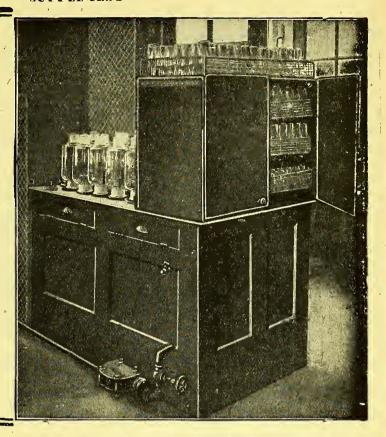
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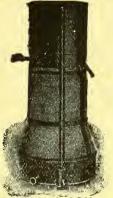
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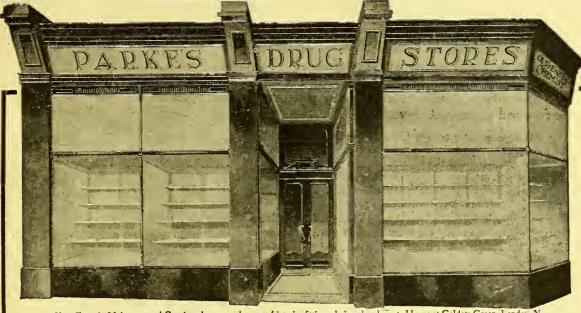
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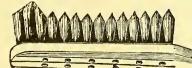
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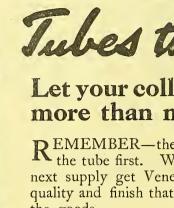


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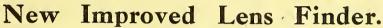
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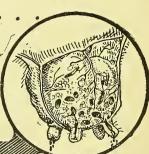
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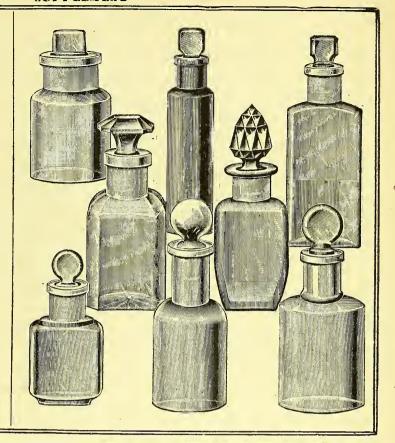
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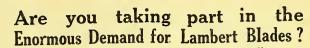
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Write for terms to-day



The Lambert Silver-plated Razor Outfit, retailed at 17/6, surpasses those usual y sold at a Guinea.

THE GRAHAM LAMBERT MNFG. CO., LTD., Nottingham Rd., Leicester.





WATTAKER & COS PAGE



"The LUTON HAT DYE I purchased was perfect."— STREATHAM COMMON.

GLOSSY SERIES also supplied if desired.

"I am very pleased with the GLOSSY HAT DYE. It has answered splendidly."— NOTTINGHAM.

LUTON STRAW HAT DYES

Special NON-INFLAMMABLE SERIES for Export.

From a Dealer:—
"I find your dyes sell
well—in fact, better
than any others I have

had."- KNEBWORTH.



From a User:—
"I think they are splendid."—
KIDDERMINSTER.

Retail at 2d., 3d. and 6d. (Packed in neat cardboard boxes of 1 dozen.)

STRIKING AND ATTRACTIVE SHOWMATTER SUPPLIED

Write to-day for Complete Price Lists and Patterns to WHITAKER & CO., Colour Works, KENDAL

Telegrams: "Dullette Kendal."

Telephone: No. 214.

London Office and Showrooms: Craven House, Kingsway, W.C. 2.

Telephone: Gerrard 1774.

Established 1878.



COLOURS

Guaranteed pure and harmless, complying with the Pure Food Laws of the U.S.A. MADE BY

HEATH MANUFACTURING CO., St. Louis, U.S.A.

SYNTHETIC PERFUMES, ESSENTIAL OILS, FLOWER OILS, HIGHLY CONCENTRATED FRUIT ESSENCES, etc.

MANUFACTURED BY

Messrs. POLAK & SCHWARZ, Ltd., Zaandam and Hilversum (Holland).

BOTTLE CAPSULES for all kinds of Bottles and Jars

MANUFACTURED BY

Messrs, CHEMISCHE FABRIEK "THALES," Amsterdam.

PLEASE APPLY FOR SAMPLES AND PRICES.

K. B. MAVLANKAR, "Minerva" 26-27 Hatton Garden, London, E.C. 1, And at 29 Corporation Street, MANCHESTER.

Telegrams: "Ekdum London."

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Telephone: Holborn 2499.

AMERICAN

"MOHAWK" BRAND

PEPPERMINT (Natural)

OIL CEDARWOOD OIL CEDARLEAF

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Heliotropine Crystals C.P. Vanillin C.P. Coumarin C.P. Oil Wormseed, American. Oil Wintergreen Leaf U.S.P.

MAGNUS, MABEE & REYNARD, Inc.

Essential Oils, Chemicals and Drugs,

NEW YORK

Cables-"MAGLAUR."

"ARETHUSA

ESSENTIAL

LEMON, ORANGE (Sweet & Bitter) BERGAMOT **MANDARIN**

Guaranteed absolutely pure

The Brand that covers only Finest Quality Oils.

> Manufactured by the old-established house of FRATELLI JUNG (Est. 1867) Palermo, Messina, Catania.

ASK YOUR USUAL SUPPLIERS

to deliver you "Arethusa" Essential Oils, or apply to the London Agents:

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Telegrams: "Spicebush, Bilgate, London." Telephone: Avenue 206 (3 lines, 7 extensions).

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ESSENTIAL OILS, &c.

for the Soap, Confectionery, Mineral Water, Tobacco and Allied Trades.

SPECIALISTS

in the manufacture of SYNTHETIC Products for the Perfumery Trade.

Flor. Oils. Pharmaceutical Oils. Chemicals.

LARGE STOCKS IN LONDON.

Apply for Price List to-

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PURE ESSENTIAL

OIL OF HOP

Singly and fractionally distilled.
HIGHEST CONCENTRATION AND PURITY GUARANTEED.

Prices, samples and information from the distillers:—

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LIVERPOOL, BELFAST, BOSTON, and TANDRAGEE.

PURE

BULGARIAN OTTO DE ROSE

STOCKS HELD IN LONDON SOLD UNDER OUR GUARANTEE

F. & A. Swanzy Limited West Africa House, Kingsway London, W.C. 2

CHLOROPHYLL C.

Fast to Light and Acid—Absolutely Pure. Guaranteed to be of uniform concentration and shade, and to give an entirely clear solution.

The Sandoz Chemical Co., Ltd. - - Bradford.

(1)

Buy from the Actual Distillers.

Shipkoff's Pure Otto of Rose

Nature ordained that Otto of Rose should have certain chemical and physical contents. Fakers design rose oils having the same contents, but they are not Otto of Rose.

Shipkoff's Otto of Rose is Nature's Otto. Before placing your contract be sure to get Shipkoff's sample and price, and try it. Original Sample Coppers in 1, 2 & 4-oz. sizes.

ONCE TRIED-ALWAYS USED.

Highest Awards at all Universal Expositions, including Four Grand Prizes.

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Model Steam Factories in K zanlik, Kalofer, Kerlovo and Rahmenlari. London Depot

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Wholesale and Export ONLY.

DRESSING - RAKE - TOOTH

Write for Samples and Quotations for immediate delivery.

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stablished BERTRAND FILS, GRASSE

AVENDER (French), SPIKE LAVENDER (French and Spanish)

NEROLI, GERANIUM (African and Bourbon), SANDALWOOD, PETITGRAIN (French and American),

VETIVER (Java and Reunion), ROSEMARY, BOIS DE ROSE FEMELLE, YLANG, &c.

ORRIS CONCRETE and LIQUID.

ESSENCES, SOLIDES and LIQUIDS from flowers.

We have Stocks in London of the most important Essential Oils and Perfumery Products.

Makers of SYNTHETIC PERFUMES

and some of the finest original odours extant, for Sachets, &c.

SOLE AGENTS FOR THE UNITED KINGDOM:

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TERPENELESS OILS BRITISH MADE

We manufacture exc'usively ourselves all kinds of Terpeneless Oils, and invite inquiries from users throughout the world.

WE SPECIALISE IN TERPENELESS:

Anise (Anethol)

Bay
Bergamot
Caraway
Cassia
Cinnamon
Clove

CINNAMIC ALDEHYDE GERANIOL

Dill Geranium Ginger

Juniperberry Lavender Lemon Limes

CITRAL EUCALYPTOL

3

Mandarin Nutmeg Orange Peppermint Petitgrain

Rosemary

LEMON - BERGAMOT ORANGE - MANDARINE.

-SPINELLI-

The Oils that have a Long Reputation for Quality.

In the manufacture of our Terpeneless Oils it was imperative that we secured the very finest Sicilian Oils to work upon. After several exhaustive tests we came to the conclusion that the "SPINELLI" brand of Sicilian Oils gave us the best resu ts. As we were able to place large orders for our own needs with the manufacturcrs, we have pleasure in stating that they have entrusted us with their British Agency, and we offer to users of Sicilian Oils the benefit of our experience. The e is a quality in every package. Guaranteed Genuine Oils of authentic origin, and to conform to any analysis as to purity.

HOLLANDS DISTILLERY LTD

Lavington Street, Southwark, LONDON, S.E. 1.

ABC Code, 5th Edition. Western Union. Telegrams: "LANDSLOH LONDON."
Telephone: Hop 898.

AUSTRALIAN AGENTS.—OURY, MILLAR & CO., LTD., 350 Kent Street, SYDNEY.
INDIAN AGENT.—Mr. W. CARR, c/o GRINDLAY & CO., BOMBAY.

RESTUCCIA'S Pure Sicilian Oils.

LEMON ORANGE BERGAMOT

Finest quality with a world-wide reputation.

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CITRUS BRAND and MANUFACTORY

(G. A. RESTUCCIA, Manager)

MESSINA - ITALY.

(Established 1860)

LONDON AGENTS:

J. ALEXANDER & PRICE, Ltd.

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WE MAKE IN ENGLAND

GLASS BOTTLES



WE import from our special works in France and Belgium all kinds suitable for Chemists, Perfumers, Essence Manufacturers and all kindred trades. We are in a position to give prompt deliveries of reasonable quantities in a reasonable time. Prices on application.

STOCKS OF VARIOUS SHAPES & SIZES.

A. Ruch & Co., Ltd.

Geo. G. Forsyth,

28 MARTIN LANE, CANNON STREET, LONDON, E.C. 4.

Telegrams—"Sennock, Cannon, London."
Telephons—Central 4799.

1/9



The

HENNACULT

of Hair Beauty, based on the famous

EVAN - WILLIAMS
ORIGINAL

HENNA SHAMPOO

daily extends its boundaries, and is now a subject for popular journalism.

It pays to sell this famous line.

You will find full details of terms and prices in the current issue of "THE SHAMPOO SALESMAN," a copy of which is gladly sent on request

Be sure to order



Wholesale only:
THE EVAN-WILLIAMS CO., LTD.
18 Ogle Street - LONDON, W. 1.

"Jackel's Cream"



CREAM

Trade Mark attached to each

Sold everywhere
Established 1883.

(without Grease)
for THE HAIR

यात्राच्या यात्राच्या यात्राच्या

"Jackel's Cream" fixes the hair in any desired position; is unexcelled as a dressing and does not soil the headware. It removes Scurf and Dandruff, keeps the scalp healthy, and promotes the natural growth of the hair while maintaining its softness and brilliancy.

Prices for Wholesale and Export Houses on application.

Jackel et Cie (of Paris)

Ltd..

Sauchiehall Street

GLASGOW.



Mr. Geo. R. Sims' "Tatcho" and "Tatcho-tone."
A big vigorous, impressive advertising campaign, covering the whole of the British Isles, is now being pursued. A vastly increased volume of business is inevitable. Generous profit to the trade has been arranged.



THE HAIR GROWER

Wholesale:

26/-

PER DOZEN.

TATCHO-TONE

FOR GREY HAIR
Price 4/6

Wholesale:

PER DOZEN.

GEO. R. SIMS' HAIR RESTORER CO. 5 Great Queen St., Kingsway, LONDON, W.C.2.

The Big "HARLENE" Seller

(Special Dummy for Window Displays).

Place this Dummy as prominently in your window as the "Harlene" advertisements are placed in the National newspapers, and you will assuredly reap

A SPLENDID HARVEST.

New customers in their thousands are being made daily by the unique Fourfold Free Gift Offer, and all these new buyers are advised to secure their supplies from Local Drug Stores or Chemists.

This MAMMOTH DUMMY, which mea. sures 14" × 6", placed in your window will remind passers-by of their need, created by widespread publicity in the Press, and you will benefit by the constantly recurring sales.

SO GET THIS HUGE SELLER AT

and a good stock of "Harlene" Preparations to meet the demand.

IMPORTANT PRICE

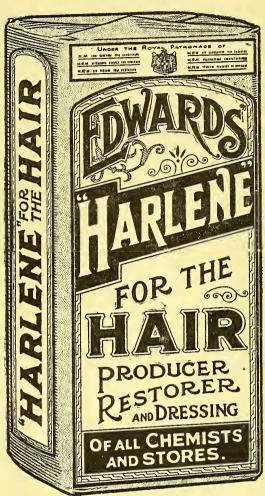
CREMEX SHAMPOO POWDERS

Owing to the greatly increased cost of raw materials, and in order to maintain the present high quality, it has been found necessary on and after DECEMBER 1st, 1920, to amend the price of CREMEX SHAMPOO POWDERS. From the above date the RETAIL PRICE will be advanced

FROM 1/11 TO 1/6 PER BOX

of Seven Shampoo Powders (single packets from 2d. to 3d. each). Trade Prices will be amended from 12/6 to 15/10 per dozen boxes of Seven Shampoos each, less 20 %.

These amended prices show you an INCREASED PROFIT per sale and percentage.



"HARLENE" **PREPARATIONS** TOILET

- "Harlene" for the Hair.
- "Uzon" Brilliantine
- "Cremex" Shampoo Powders.
- "Astol" for Grey Hair.
- "Astine" Vanishing Cream.

 "Astine" Tooth Cream.

 "Astine" Shaving Soap.

 "Astine" Nail Cream.

For Particulars, Terms, etc., write to

EDWARDS' HARLENE LIMITED,

20, 22, 24, 26 Lamb's Conduit St., London, W.C.1

37 Gray's Inn Road, LONDON, W.C.

Toilet Specialities.

			Price per dos. to Retailer.	Selling Price
PILENTA SOA	P		10/-	1/-
A complexion soap. PROLACTUM	_	_	10/-	1/-
For the lips.		-	10/-	1/-
PARSIDIUM J	EL	LY	10/-	1/-
ALLACITE of		NGE	22/6	2/6
BORANIUM	-	-	22/6	2/6
A hair tonic. CLEMINITE			22/6	2/6
For a face lotion.	_			
COLLIANDUM For a face tint.	I -	•	22/6	2/6
PERGOL -	-		22/6	2/6
A deodorant. STALLAX -			22/6	2/6
For a shampoo.				- '0
JETTALINE For clearing the skin.	•	-	31/6	3/6
PHEMINOL A depilatory.			36/-	4/-
MENNALINE	-		36/-	4/-
For the eyelashes. MERCOLIZEI	777	AX	31/6	3/6
A face cream.				
STYMOL = For oily complexions a	nd bia	chhaoda	36/-	4/-
BARSYDE	=	=	22/6	2/6
Dandruff eradicator.				010
TAMMALITE For grey or faded hair		=	22/6	2/6
LIQUID PERC			31/6	3/6
BICROLIUM	espirat =	non locall	22/6°	2/6
For whitening the han	ds.			
HARAPOSA Nut oil shampoo.	40	•	22/6	2/6

STOCKED BY ALL WHOLESALE HOUSES

COLONIAL DEPOTS AND AGENCIES.

AUSTRALIA:

ALL WHOLESALERS, and DEARBORN, Ltd., Grace House, Clarence Street, Sydney.

SOUTH AFRICA:
LENNON & CO., Ltd (Cape Town)
SIVE BROS. & KARNOVSKY, Ltd. (Johannesburg)

INDIA:
REMP & CO., Ltd. (Bombay)
THE INTERNATIONAL TRADING CO., Princess Street (Bombay)
R. MACLURE (Madras)
SMITH. STANISTRET & CO. (Calcutta).
MEHTA BROS. (Calcutta)
JAMNADAS BROS. (Bombay)

MEW ZEALAND: SHARLAND & CO., Ltd. (Auckland & Wellington)

BOUTH AMERICA:
DEARBORN, Ltd., Calla Salta 264, Buenos Airea.

The "EVERSAFE"

BARY PACIFIER

Patented Everywhere.

Present rates:-

No. 2 4d. line **2/9** doz

2C 6d. ,, 3/2 ,, 2E 6d. " 3/4 "

3 7½d.,, 4/8 ,,

all Wholesalers or direct from Patentees.

Obtainable from

Sample Order, Three Dozen Assorted: Send 10/6, post free.

F. SCHUTZE & CO., LTD., Black Bull Works, London, N.

SALES ALWAYS INCREASING.

INDIAN PERFUME BRICK

KEEPS AWAY MOTH. LASTING & FRAGRANT.



FOR LINEN CUPBOARD AND WARDROBE. On the P.A.T.A. Retail Price 6d.

WANDA TOILET PUMMICE. WANDA NAIL POLISH. WANDA ONE-DROP PERFUME.

Of the Makers:

WILLIS, LOW & DRUIFF, LTD., 33 Percy St., London, W. 1. AND ALL WHOLESALERS.

DAMSCHINSKY'S

AMERICAN LIQUID DYE.

Single Preparation for the Hair and Beard.

MADE IN FIVE NATURAL SHADES. BLONDE, LIGHT BROWN, BROWN, DARK BROWN, AND BLACK.

2/- Size 15/- per doz. net.

3/- " 22/- " " ...



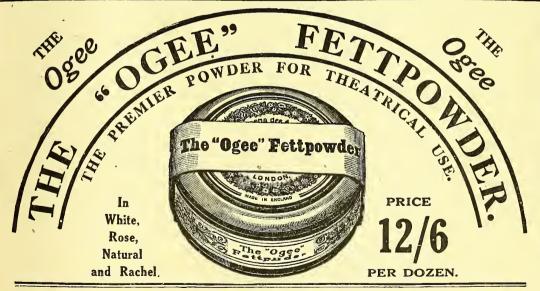
This excellent Dye has an enormous Sale all over the World.

SIMPLE TO USE. WILL DYE RED. GREY OR FADED HAIR TO THE DESIRED SHADE IN A FEW MINUTES. IT IS NOT A BLEACH. WILL NOT DYE DARK HAIR LIGHTER.

From all Wholesale Houses or direct from sole British Agents:

OSBORNE, GARRETT & CO., LIMITED,

LONDON, BIRMINGHAM AND GLASGOW.



PROPRIETORS OF

THE CELEBRATED "OGEE" BRAND OF GREASE PAINTS. AND THEATRICAL PERFUMERY.

OSBORNE, GARRETT & CO., LIMITED, BIRMINGHAM. LONDON, W. GLASGOW.

The Best-Selling Window Line

is revealed by experience. Look at the pharmacy windows up and down the country and see what cumulative experience has done for Euthymol.

In the recent window-dressing competition organised by the promoters of the

INTERNATIONAL ADVERTISING EXHIBITION

Euthymol Tooth Paste secured for chemists no less than EIGHT AWARDS as against the next highest of two to an individual product and three to a series of products.

This clearly proves (1) that Euthymol Tooth Paste lends itself to particularly effective display, and (2) that chemists have discovered that in addition to its substantial excellence it possesses those more elusive qualities which cause it to sell when displayed on an impressive scale.

The result emphasises the point made in a recent advertisement of an instance in which the rent of the pharmacy was paid by the profit on sales of Euthymol Tooth Paste made by bold and persistent displays, well supported at the counter.

EUTHYMOL PROFITS COME EASILY

Perfumery of Distinction . .

From the Famous French: House

Parfumerie D'Orsay

Chemists who are looking for high-class goods which they can recommend with confidence should take note of the following:—

FINOLETTE - - - 20/3 CHEVALIER D'ORSAY - 11/3 CHYPRE D'ORSAY - - 9/5 ROSE D'ORSAY - - 9/7 POUDRE D'OR - - 2/6

(the well-known Parisian Face Powder in various perfumes).

Although D'Orsay Perfumes are well known in England, we are now advertising them largely to create a bigger demand. We have just placed advertising contracts for whole pages with the *Tatler*, *Vogue*, and *Sketch*, and our first advertisement will appear in the early December issue of *Vogue*.

To meet this increased demand we are keeping in London a large stock of the most saleable lines, so that we can meet at once the requirements of our customers.

If you have not yet placed your order for D'Orsay, write to us at once—only a few days left. Do not miss this opportunity to increase your Xmas sales.

Sole Agents for the U.K. and S.A .-

J. NASSAN & CO., BASINGHALL STREET, LONDON, E.C. 2.

Phone: Central 8799.

S

Has been CONSISTENTLY ADVERTISED in the best AMERICAN and CANADIAN PERIODICALS for twenty-five years.

A Medicinal Toilet Cream with a world-wide demand that is rapidly increasing. Two sizes

Prepaid Parcel Post to Great Britain and her Asiatic and African Colonies. Samples and store displays free with every order.

Ingram's Milkweed Cream

- Velveola Souveraine (Face Powder)
- Zodenta Paste for the Teeth
- Rouge, Light, Medium, Dark
- Perfume, 1 oz. assorted in fancy packages

100 Guest-Room Packages free.

Shipped via Parcel Post Prepaid.

Send us with your order the names of 100 of your lady customers, and we will mail each of them a handsome folder, inviting them to call at your store and get our Guest Room Package free, containing one each of the above in sample sizes, including Perfume.

If more convenient to you, specify shipments from our Canadian Plant,

FREDERICK F. INGRAM COMPANY (Established 1885).

411 Lafayette Boulevard, Detroit, U.S.A. Canadian Piant: Windsor, Ont.



Twenty-five years continuous advertising has made this trade mark known wherever American and Canadian publications are read.

KEENOLIA

MADE UP IN TWO SIZES:

4 oz. retails at . . 2/-8 oz.

Attractive Showcards supplied GRATIS.

From all Wholesalers, or direct from Manufacturers.

 $\it The$. "CASSON BRAND"

COLD CREAM LANOLINE LAVENDER ICE



THE

44a WESTBOURNE GROVE, LONDON, W.2.

Telephones: Park, 2884 & 3568.

Something New. 'RECAMIER' Toilet Productions. Creme Recamier, 1/6, 3/- and 5/6 Savon Recamier, 1/3 and 3/6 Creme de la Harem, 1/3, 2/6 and 4/6 Special Face Powder, 1/9, 3/- and 4/6 CARRIES VERY SUBSTANTIAL PROFITS Enquiries Invited, RECAMIER TOILET PRODUCTS CO. 4 St. James's Street, London, S.W. 1.

ESTABLISHED

From GARDINER & C

We supply protective overalls in any colour or style required. They are made by experienced hands for all branches of the Chemical trade.

KHAKI DRILL

17/6 21/- 26/6

18/11

WHITE DRILL BLACK DRILL

19/6

Sizes 34, 36, 38, 40, 42 and 44 inches over waistcoat.
SPECIAL QUOTATIONS FOR QUANTITIES.

GARDINER & CO. (THE SCOTCH) LTD. 1 Commercial Road, E.1.

Teleg.': "Durastyle, Phone, London." Phone: Av. 6650 (4 lines.)

BOURJOIS PARIS. No. 45. 2/- Size, I doz. 16/- doz. I doz. 15/9 , 12 , 15/6 , 12 , 10/6 , JAVA" Powder is now being largely advertised to the public. LOOK TO YOUR STOCKS.

Monthly 5-Guinea Cash Prizes Open to all Retailers

To Stimulate New and Enterprising Sales-Making Ideas.

TAKE a look at your window. Look at it from the point of view of a critic asking himself if it shows the best possible kind of window display to arrest and hold the attention of passers-by. Next, think over the all-important question whether your window is paying its rental value.

The window costs every Retailer from 50% to 75% of his rent, and as such should pay the tenant a good profit. Windows there are a-many that are not paying their high proportion of the rent, and immediately this fact is perceived some enterprising and successful new sales-making ideas are bound to arise in the mind of the Retailer.

A Retailers' Revealing Experience.

A London suburban Retailer has had a most encouraging experience of the value of new sales-making ideas in the

dressing of his window.

dressing of his window.

It all arose out of a challenge which this open-minded Retailer accepted in the true British sporting spirit. The story may be briefly told. When the Dentalos Co.'s traveller called on him, he said he was "full up" with dentifrices. The way in which he said it implied that he was more than 'full up"—he was "fed up."

The traveller noticed that this Retailer's display did not make the most of its real value, and he offered to dress his window. The chemist agreed, and the traveller made an effective display with "Dentalos" Dental Foam, also tooth brushes and other kindred lines. The result was that this Retailer telephoned for further supplies the next day, and sold within four days a gross and a half of "Dentalos," besides greatly increasing his average sales of many other lines as the direct result of the eye-arresting display bringing in many more customers than his usual

of many other lines as the direct result of the eye-arresting display bringing in many more customers than his usual "ordinary" window.

True, no small measure of this success was achieved by reason of the central display of the "Dentalos" Prize Competition Show Bill. This Show Bill offers a 120-guinea Fur Coat, or any 1921 Model

Motor Cycle or Scooter, as exhibited at the Olympia Exhibition, 1920, for a title for the new "Dentalos" picture poster featuring the "Dentalos" Trade Mark. Every retailer who would like to enjoy a similar experience of the sales-making value of the same windowexperience of the sales-making value of the same window-dressing idea is here invited to try for one of the monthly 5-guinea Cash Prizes offered to the Trade, and names of the winners of which will be announced in *The Chemist and Druggist* monthly.

The 5-guinea prize is offered for the most interesting "Experience" of the sales-making value of the "Dentalos" Window Display, accompanied by a snapshot of the display for publication for the information and encouragement of other Retailers.

This idea is really worth trying, for there is also a £25

This idea is really worth trying, for there is also a £25 Cash Prize offered to the Retailer who supplies the winner of the Public Competition with his or her "Dentalos"—and every Competitor has to give the name of his Retailer.

name of his Retailer. The Dentalos Co, will be pleased to supply the same Show Bills with any size order for "Dentalos" Dental Foam. The Trade Terms are inviting, namely: Retail at 1/3 per tube (Trade at 10/6 per dozen, net monthly a/c, or 5% discount for cash with order.) FREE BONUS to those desirous of trying out this sales-making idea whole-heartedly. 1½ DOZEN TUBES FREE with every order for one gross. Carriage paid on all Cash Orders. Cash Orders.

Another point of this proved sales-making idea to note is that many of the buyers of "Dentalos" are buying not one tube at a time, but 3's, 6's, and even dozens of "Dentalos"—which every Chemist will agree has points of superiority ensuring future sales to all who try it.

Where Assistants are employed, here is a chance to awaken their interest in sales-making window and counter displays, by the offer of a share or the whole of the Prize Money.

the Prize Money.

Reading and Thinking are no good without Action—so why not send in your order to-day to—

THE DENTALOS CO., 22 CHARTERHOUSE SQUARE, LONDON, E.C. 1.

TOILET PREPARATIONS



OF **OUALITY**

A DAINTY AND REFINED TOILET AID.

DELIGHTFULLY

PERFUMED.

POUDRE

CHARMING FOR THE COMPLEXION.

P.A.T.A. Retail, 2/9 complete. ... 22/- doz. Wholesale

PACKED IN ARTISTIC ALUMINIUM BOX WITH PUFF.

TINTS: ROSE AND NATURELLE.

REALLY RELIABI TOILET AIDS

P.A.T.A. PRICES.

TREVONA Toilet Powder Delightful and antiseptic. Sprinkler-top tin

TREVONA Dental Powder

Pleasant antiseptic, cleansing deodorant, large tin in carton.

Wholesale 14/- doz. 1/9

1/3 10/- ,,

TREVONA Shampoo Powders 2/3 The Ideal Hair Wash, 43d, each, Box of seven,

TREVONA Floral Bath Powder 2/3 18/- ,, Highly concentrated. Fragrant and refreshing.

DISCOUNT: 5 % on 3 dozen assorted; 10 % on 6 dozen assorted. MONTHLY ACCOUNT: 23 % Cash Seven Days. CARRIAGE PAID. SHOWCARDS, ADVERTISING MATTER, etc., SUPPLIED.

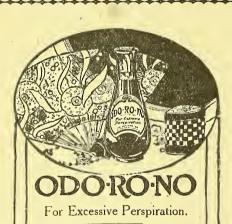
TELEPHONE: HOP 5959.

C.R.OLVER & CO. 97, UPPER KENNINGTON LANE, VAUXHALL, LONDON, S.E.II

TELEGRAMS: "OCREVLORG VAUX, LONDON

Wholesale

18/- doz.



IN CONSTANT DEMAND DURING WINTER DANCE SEASON.

Retail Prices 2/- 4/- 7/6

FROM ALL WHOLESALERS

or direct from

THE AMERICAN DRUG SUPPLY CO.,

LTD.. 6 Northumberland Avenue

LONDON, W.C.2.



The Orginal and successful Remedy for PYORRHEA

Prescribed by the Dental Profession. PRICES.

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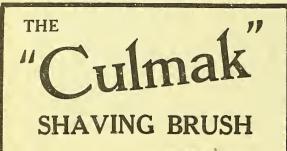






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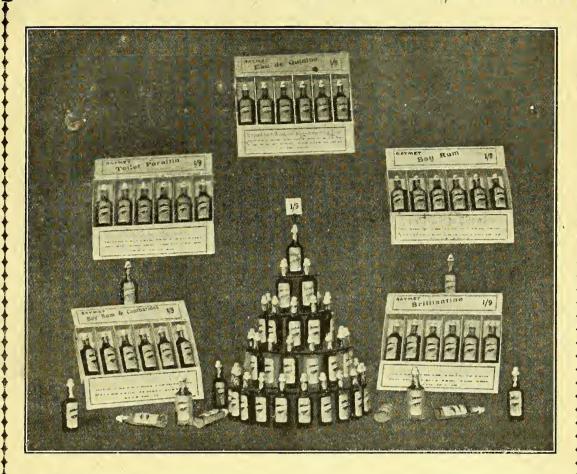
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DECEMBER 25, 1920

This Supplement is inserted in every copy of The Chemist & Drugoist



Best Wishes



PHARMACY AND THE DRUG

Bappy Imas and Prosperous New Year

XMAS 1920.

The Chemist & Druggist, 42 Cannon Street, London, E.C. 4. NEW YEAR 1921.

CHEMISTS' TRANSFERS. Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

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4.—LONDON, N.E.—For immediate disposal, Freehold Premises, with Residence; vacant possession; formerly held by Chemist many years; price for freehold about £1,300, £650 on entry.

entry.

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about £1,800. 14.—YORKSHIRE.—Cash Retail Business, returning £3,000 per annum, at usual prices; lock-up shop; rent £80; held on lease terms, valuation of stock and fixtures and small sum for goodwill.

Messrs. O. & Co., desire to emphasize the necessity of a periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes the cause of confusion and loss.

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PHARMACY or Drug Store required at once, in or near Manchester; cash available £400.£500, if higher, balance by instalments. Full particulars, in confidence, to "Chemist," 70 Moreton Street, Great Ducie Street, Manchester.

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Valuable freehold chemist's shop (with Goodwill) in Stockport, to be solld by Auction by Mr. H. B. Ford, at the Warren Bulkeley Arms Hotel, Stockport, on Friday, the 14th day of January, 1921, at 7 o'clock in the evening, prompt, subject to the Conditions of Sale to be then and there produced, All that Messuage or Chemist's Shop, 48 Castle Street, Edgeley, Stockport, in the County of Chester, together with the site containing 86 square yards or thereabouts,

And also all that perpetual yearly rent or sum of £2 11s. payable out of adjoining premises.

The property is freehold, and the sale will include the goodwill of the old-established Chemist's Business as a going concern carried on for very many years by the late Mr. R. T. Forbes.

The Stock, Fixtures, Fittings, and Utensils will be valued by the Auctioneer, and the purchaser will be required and entitled to take over the same at such valuation.

The business has been a large and increasing one, and the premises occupy a most prominent position in the main thorough fare of Edgeley. There is ample scope for further extension, and the sale presents a unique opportunity to investors.

For further particulars apply to the Auctioneer, 59 Wellington Road South, Stockport (Tel. 2279), or to Henry Green, Solioitor, Queen's Buildings, St. Peter's Square, Stockport.

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Applications are invited for the post of Assistant Lecturer and Demonstrator in Pharmacy. The position is a whole-time appointment. Preference will be given to candidates possessing the Major qualification and some teaching experience. Full particulars and form of application (to be returned by 1st January) may be obtained from the Secretary, Municipal Technical School, Birmingham.

DARLINGTON.—Assistant required. Apply, stating age, height, experience, and salary required, also if knowledge of Photography, and if an abstainer, to Waters, Chemists, Darlington.

L ONDON, N.W.—Junior Assistant wanted (at once); Counter and Dispensing. Apply, giving particulars of salary expected, etc., to P.C.B. 46/20, Office of this Paper.

SWANSEA DISTRICT.—Junior; unqualified; references; age and salary; photo if possible (returnable). Apply "T. P." (229/37), Office of this Paper.

A SSISTANT required; unqualified; good experience; outdoors; personal application preferred. Dyson & Co., 35 Gloucester Road, South Kensington.

A SSISTANT (unqualified), age about 25; accustomed to good-class Retail and Dispensing. Apply, stating age, height, salary required, with references and photo, to T. Furness & Son, The Pharmacy, Stephenson Place, Chesterfield. (Applica-tions not answered in 3 days declined.)

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QUALIFIED Junior Assistant, with knowledge of Photography.

Apply, by letter, to W. Shadforth, Pharmaceutical Chemist,
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PARKE'S DRUG STORES, LIMITED, have a vacancy for an unqualified Assistant, who must be energetic, a reliable Dispenser, good Window-dresser, and Salesman. Applicant should be resident in London or suburbs, and could be interviewed at 65 Harmood Street, Camden Town, N.W. 1, any morning between 10 and 11 o'clock.

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As Secretary to Hospital or Assistant; ex-Service, etc.; 43; married; 14 years' experience in business on own account as Chemist, also nine months' experience as Chemist's Manager. Apply M. L. 94021, Office of this Paper.

A SSISTANT seeks easy berth due to not being strong; unqualified; single; first-class experience. Apply P.C.B. 46/16, Office of this Paper.

A SSISTANT, qualified; middle-agc, single, active, capable; any class business; well recommended; easy terms. "Delta," 27 Dryden Street, Nottingham.

A SSISTANT, unqualified; 8 years' good-class experience; capable Dispenser; good references; tall. Replies to "Esperanza" (231/14), Office of this Paper.

CHEMIST'S Assistant; 26; single; ex-Service man; knowledge French; three years' apprenticeship; two years as Assistant; passed all subjects in Minor exams. except Pharmacy. Apply M. L. 254363, Office of this Paper.

CHEMIST; qualified; ex-Service; age 21; single; educated Sunderland Technical College and Westminster College. Apply M. L. 89070, Office of this Paper.

CHEMISTS' Assistant; qualified; 23; single; some knowledge of French; three years' apprenticeship. Apply M. L. 243098, Office of this Paper.

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DEMOBILISED Officer desires position as Chemist; 40; married; educated Manchester University; colloquial French and Welsh; knowledge company law and finance. Apply M. L. 97877, Office of this Paper.

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DISPENSER, Minor qualification, desires post in Hospital or Public Institution, London; highest references from leading London Hospital. "Dispenser" (P.C.B. 46/24), Office of this

EX-SERVICE.—Position as Assistant; 25; 3½ years' apprenticeship, three months' experience as Assistant. Apply M. L. 14753, Office of this Paper.

JUNIOR, qualified (22), desires progressive post; four years' experience. F. B. Elders, "Frayne," Downs Park, Herne Bay, Kent.

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LADY Dispenser (Hall qualification), Minor Student, wishes post; experienced; disengaged. Miss E. A., 36 St. James's Road, Brixton, S.W.

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QUALIFIED Manager or Assistant; good worker and experienced; 24; tall; salary and details. Rigby, 47 Sandy Lane,

QUALIFIED (26); capable and energetic; best references; excellent experience; willing to manage a business. Apply 231/20, Office of this Paper.

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and other well-known makers for hand and power, to mix 7-lb, up to half a ton of Plastic material. Also mixers for Ointments, Liniments, etc. and dry Powters, Also three "Werner" Sifters, one "Barron" Sifter, one "Hillman" Sifter, and one "Gardner" Sifter & Blender. All machines are in first-class working order.

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EX-SERVICE man seeks post as Traveller for Chemists' Sundries house; 35; married; has large connection London and North of Thames; willing to serve indoors for first few months. Apply M. L. 9983, Office of this Paper.

THOROUGHLY experienced and capable Works Manager, Pharmaceutical and Toilet Preparations, all varieties, Toile's Scap, and Chemicals, desires re-engagement New Year; London preferred. Apply 220/28, Office of this Paper.

UNQUALIFIED Chemist, 32, married, ex-Service, 8 years' experience as Manager, and on own account, desires post as Representative, Chemists' Sundries. Apply M. L. 96886, Office of

YOUTH (16), leaving school at Christmas, desires to enter Chemical trade. Address P.C.B. 40/19, Office of this Paper.

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